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OCABULARY OF PHILOSOPHY

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WITH

QUOTATIONS AND REFERENCES.

BY

WILLIAM FLEMING, D.D.,
FORMERLY PROFESSOR OF MORAL PHILOSOPHY IN THE
UNIVERSITY OF GLASGOW.

Fourth Edition.

REVISED AND LARGELY RECONSTRUCTED BY

HENRY CALDERWOOD, LL.D.,
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PREFACE TO FOURTH EDITION.

IN preparing a new edition of Professor Fleming's *Vocabulary of Philosophy*, it has been found impossible to adhere to the plan adopted in last edition, of retaining the form in which the book came from the Author's hands. Such an interval has elapsed since his death, and so many important additions have been made to philosophic literature since that time, that a reconstruction of the work had become needful.

In undertaking the task of revision, the objects contemplated have been the following:—(1) to indicate variations in usage that have occurred in the history of philosophic terms; (2) to guide students in their use of a large library by ample references to the literature of the subject; (3) to meet urgent demands in course of study by selecting appropriate quotations from standard authors. In prosecuting revision with these objects in view, quotations have been withdrawn which seemed of secondary importance. Fully one half of the book is new, bringing it quite up to the date of publication.

An intention formed at the outset of showing in the text the new matter introduced was early abandoned, because of the risk of encumbering the page by constant reappearance of brackets.

Throughout the laborious work of revision, verification, and selection of extracts I have been very ably supported by Mr James Seth, M.A., whom I, with the consent of all

concerned, appointed Assistant Editor. Mr Seth was Baxter Scholar in Philosophy in this University in 1881; became Ferguson Scholar in Philosophy in 1882, in competition open to all the Scotch Universities; and was Assistant to my colleague, Professor A. Campbell Fraser, Professor of Logic and Metaphysics. Mr Seth undertook revision of all the logical terms, and, besides continuous work over the whole book, has contributed occasional articles, marked with his initials. Since beginning the duties of Assistant Editor, Mr Seth has been appointed Professor of Mental Philosophy in Dalhousie College, Halifax, Nova Scotia.

In addition to the aid given by Mr Seth, I have had the advantage of revision of MS. and contribution of several articles, marked [J. W.], by my former Class Assistant, Mr James Weir, M.A., Vans Dunlop Scholar in Logic and Metaphysics, 1882; and I have had further valuable help in careful revision of proofs by my present Class Assistant, Mr William Mitchell, M.A., Vans Dunlop Scholar in Moral Philosophy, 1886. To these three gentlemen I tender publicly my warmest thanks for unwearied and efficient service in the preparation of the present edition, and in the endeavour to secure accuracy throughout the list of references.

HENRY CALDERWOOD.

UNIVERSITY OF EDINBURGH,
December 24th, 1886.

The Editor will feel obligation to those using the *Vocabulary* if they report to him any error detected in the references.

PREFACE TO THIRD EDITION.

THE fact that the *Vocabulary of Philosophy* by the late Professor Fleming soon passed through two editions shows that it has supplied a want felt by those entering upon philosophic study. Recognising this, I have willingly responded to the request to edit a new issue of the work.

My purpose has been to retain the book as nearly as possible in the form in which it came from the hands of Professor Fleming. Occasionally I have withdrawn some quotations, when their numbers seemed too large. Additional manuscript left by Professor Fleming has been carefully examined, and some part of the new matter has been introduced. Vocables have been inserted, the absence of which left a blank in a *Vocabulary of Philosophy*.

In only one thing have I thought it needful to depart from Professor Fleming's plan. I have ventured to introduce definitions of the leading vocables. These definitions constitute the new feature in the edition now published, and are enclosed within brackets, to indicate the portions for which I must be held responsible.

H. CALDERWOOD.

THE UNIVERSITY OF EDINBURGH,

11th September 1876.

VOCABULARY OF PHILOSOPHY.

ABILITY and INABILITY—(NATURAL and MORAL).

Ability, Natural—power to act, characteristic of a living being, implying possession of vital organ or mental faculty, and presence of conditions requisite. *Inability*—the negation of either of these, consequent on loss of power or lack of opportunity. The distinction applies equally to organic and to intellectual life.

Moral Ability is sufficiency of ethical motive for fulfilment of all ethical law. *Moral Inability* is deficiency in ethical motive, consequent on want of harmony between personal inclination and personal obligation.

The reference to "moral inability" introduces to the relations of Philosophy and Theology. Natural Ethics maintains adequacy of power requisite for personal responsibility notwithstanding moral disorder. Christian Ethics, proceeding from this position, emphasises moral disorder, maintains man's inability to effect escape from it, and at the same time discovers Divine intervention for deliverance. The moral ability of natural ethics involves these things—knowledge of moral law; power of understanding to decide upon the application of such law in varying circumstances; motive forces impelling to action, thereby giving occasion for self-government; and will-power, or inherent power of rational self-control, by restraint of impulse, reflection on duty, rational determination, and subsequent action. What is here meant by "inability" is per-

sistence of disinclination to act in accordance with moral law, consequent upon disturbed harmony of the moral nature. In Christian ethics this has its counterpart in the doctrine of Grace, or Divine Salvation, by direct action of the moral influence of the Divine Spirit. On its philosophical side, see Principal Shairp on "The Moral Dynamic" (*Studies in Poetry and Philosophy*, p. 348).

ABSCISSIO INFINITI.—"A series of arguments in which we go on *excluding*, one by one, certain suppositions, or certain classes of things, from that whose real nature we are seeking to ascertain" (Whately's *Logic*, bk. ii. ch. iii. sec. 4).

ABSOLUTE (*absolutum*, *ab* and *solvo*, to loose from).—(1) *Adjective*, applied to the essence of a thing, apart from its relations or varied representations; (2) to the perfect or completed form of existence; (3) *substantive*, "The Absolute," the Self-existent, Self-sufficient Being, independent in nature and in action—the Uncaused—the Cause of all existence besides.

"The term *absolute* is of twofold (if not threefold) antiquity, corresponding to the double (or treble) signification of the word in Latin. (1) *Absolutum* means what is *freed* or *loosed*; in which sense the *absolute* will be what is aloof from relation, comparison, limitation, dependence, &c., and is thus tantamount to τὸ ἀπόλυτον of the lower Greeks. In this meaning, the *Absolute* is not opposed to the *Infinite*. (2) *Absolutum* means *finished*, *perfected*, *completed*; in which sense the *Absolute* will be what is out of relation, &c., as finished, perfect, complete, total, and thus corresponds to τὸ ὅλον and τὸ τέλειον of Aristotle. In this acceptation (and it is that in which I exclusively use it) the *Absolute* is diametrically opposed to, is contradictory of, the *Infinite*" (Sir W. Hamilton, *Discussions*, p. 14, note).

"By the *Absolute* is meant that which exists in and by itself, having no necessary relation to any other being. By the *Infinite* is meant that which is free from all possible limitation; that than which a greater is inconceivable, and which consequently can receive no additional attribute or mode of existence, which it had not from all eternity" (Mansel, *Limits of Religious Thought*, p. 45).

"The plain and etymological meaning of the term is *freed*

or *loosed*, and hence it means freed from restriction or condition. In this sense it is evident that the Infinite must be absolute, for that which is not limited does not afford the possibility of restriction. This is the sense in which philosophers have uniformly used the word; and in this sense Sir W. Hamilton admits that 'the *Absolute* is not opposed to the *Infinite*'" (Calderwood, *Philosophy of the Infinite*, 3rd ed., p. 165).

These definitions were the basis for discussion of the question whether the Absolute can be known under the conditions of consciousness. Hamilton, arguing against Cousin, maintained the negative (*Discussions*, pp. 1-38). Mansel supported the position (*Limits of Religious Thought*; see also Mansel's *Essays*, p. 154, *Philosophy of Kant*, and *German Philosophy*). Calderwood argued the contrary on the basis of faith and cognition (*Philosophy of the Infinite*).

Hamilton's position was accepted as an illustration of the doctrine of relativity of knowledge (J. S. Mill's *Examination of Hamilton's Philosophy*, pp. 1-129; Herbert Spencer's *First Principles*, 3rd ed., pt. 1,—*The Unknowable*, pp. 1-126).

The position of Herbert Spencer is indicated in the opening part of the *First Principles*, with extended quotations from Mansel's *Limits of Religious Thought*. The following passages will indicate the general course of the arguments:—"We are not only obliged to suppose some cause, but also a first cause. . . . We cannot think at all about the impressions which the external world produces on us, without thinking of them as caused; and we cannot carry out an inquiry concerning their causation without inevitably committing ourselves to the hypothesis of a First Cause. But now, if we go a step further, and ask what is the nature of this First Cause, we are driven by an inexorable logic to certain further conclusions. . . . It is impossible to consider the First Cause as finite. And if it cannot be finite, it must be infinite. Another inference concerning the First Cause is equally unavoidable: It must be independent. If it be dependent, it cannot be the First Cause; for that must be the First Cause on which it depends. . . . Thus the First Cause must be in every sense perfect, complete, total; including within itself all power, and transcending all law. Or, to

use the established word, it must be absolute" (pp. 37, 38). Treating of conflicting religious systems, Herbert Spencer says:—"Not only is the omnipresence of something which passes comprehension that most abstract belief which is common to all religions, which becomes the more distinct in proportion as they develop, and which remains after their discordant elements have been mutually cancelled; but it is that belief which the most unsparing criticism of each leaves unquestionable, or rather makes ever clearer" (p. 45).

Philosophy is ultimately, by its very nature, a search for the Absolute—first for absolute truth, as distinct from mere appearance, and afterwards for The Absolute Being, as the source and explanation of all dependent existence, *ens realissimum*. Thus Plato ascends from the manifold to the one, finding in the idea the key to all varieties of manifestation in the world, and passes beyond ideas to that which is more than idea—The Good—the centre and source of existence, "far exceeding essence in dignity and power" (*Republic*, vi. 507–509). So it has been in modern philosophy, Spinoza maintaining that thought is true only as we think all things in God (*Ethics*, pt. ii. prop. 32). Kant, while insisting that we cannot have logical demonstration of the Divine existence, granted that the reason seeks to transcend the sphere of the understanding, in order to reach the Absolute, and held that in the practical sphere, duty implies Deity (*Critique of Pure Reason* and of *Practical*); in succession to this come the speculations of Fichte and Schelling, concerning the Absolute, and still later, of Hegel, who, defining philosophy as the thinking view of things, makes it in substance a philosophy of The Absolute, maintaining that all existence is strictly a manifestation of the Absolute in the evolution of Being according to Dialectic. In Britain, philosophy, regarding absolute intelligence as the First Cause, source of all finite existence, turned speculation for a time on the possibility of a *knowledge* of the Absolute, while granting belief in the transcendent reality (Hamilton and Mansel), and more recently, the Sensational School, interpreting a theory of Evolution, has discoursed of the "Unknowable," treating it as "an ultimate religious truth of the highest

possible certainty, the deepest, widest, and most certain of all facts—that the power which the universe manifests to us is utterly inscrutable” (Spencer’s *First Principles*, p. 46).—V. INFINITE, UNCONDITIONED, REAL.

ABSTINENCE (*abs teneo*, to hold from or off).

Voluntarily refraining, for a moral or religious end, from things which our nature needs or delights in. Its practice is implied in the supremacy of moral laws, whenever duty conflicts with inclination. It corresponds to 'Απέχω in the precepts of Epictetus, 'Ανέχου και ἀπέχου; *Sustine et abstine*. Abstinence was much inculcated by ancient moralists, in order to make the soul more independent of the body. Thus the σωφροσύνη of Socrates, essential to a virtuous life, was a love of self-control, involving readiness for self-denial (Xenophon’s *Memorabilia*, iv. 3, 1). The Stoics regarded pleasure as irrational excitement, and counselled abstinence from it (Diog. Laert., bk. vii., *Zeno*, Zeller’s *Stoics*, &c., Reichei, p. 229).—V. ASCETICISM, STOICISM.

ABSTRACTION (*abstractio*, from *abs traho*, to draw away from; also called *separatio*, *resolutio*, and *prævisio*).—(1) The exercise of mind by which attention is withdrawn from certain qualities in an object, or from certain objects among many, and concentrated upon others. Abstraction and concentration are the two sides of one mental exercise. (2) The product of this exercise—(a) the representation of a quality, taken apart from the qualities with which it coheres; (b) a conception including a certain number of qualities to the exclusion of others, which becomes a “symbolic conception,” representing many objects or occurrences.

Abstraction is essential to a free use of comparison, and is a necessary preliminary for generalisation. It is thus a condition of advance in knowledge, but it is an artificial expedient for classification of the contents of knowledge, not an exact knowledge of things as existing. On this ground, “the abstract” was declared by Hegel to be the false, the concrete alone being the real,—the abstract being the apprehension of a thing on one side, or in one aspect.

That we are capable of abstraction, and that the exercise is

essential to progress in knowledge, are positions universally admitted. As to the character of the mental exercise, see Locke's *Essay*, ii. ch. xi. sec. 9; Reid's *Intellectual Powers*, essay v. ch. iii.; Stewart's *Elements*, ch. iv; Kant's *Critique of Pure Reason*, Transcendental Analytic, bk. i.; Hegel's *Vermischte Schriften*, ii. ch. viii. 2; Werke, xvii. 400; Hamilton's *Metaphysics*, lect. xxxiv.; Mansel's *Prolegomena Logica*, 2nd ed., p. 26; Ueberweg's *Logic* (Lindsay), p. 127; Wallace's *Logic of Hegel*, "Prolegomena," ch. x.; Sully's *Outlines of Psychology*, p. 342.

"Drobisch observed that the term *abstraction* is used sometimes in a psychological, sometimes in a logical sense. In the former we are said to abstract the attention from certain distinctive features of objects presented (*abstrahere [mentem] a differentiis*). In the latter we are said to abstract certain portions of a given concept from the remainder (*abstrahere differentias*") (Mansel, *Prolegomena Logica*, 2nd ed., note, p. 30).

Whether we can represent to ourselves an abstract conception, as an object present to our imagination, has been a subject of dispute.

"The mind," says Locke, "makes particular ideas received from particular objects to become general, which is done by considering them as they are in the mind such appearances, separate from all other existences, and the circumstances of real existence, as time, place, or any other concomitant ideas. This is called *abstraction*, whereby ideas taken from particular beings become general representatives of all of the same kind; and their names *general* names applicable to whatever exists conformable to such *abstract* ideas" (*Essay*, bk. ii. ch. xi. sec. 9; bk. iv. ch. vii. sec. 9).

In reference to this, Berkeley has said—"I own myself able to abstract *in one sense*, as when I consider some particular parts or qualities separated from others, with which, though they are united in some object, yet it is possible they may really exist without them. But I deny that I can *abstract* one from another, or conceive separately those qualities which it is impossible should exist separately; or that I can frame a general notion by *abstracting* from particulars as aforesaid, which two last are the proper acceptance of *abstraction*"

(*Principles of Human Knowledge*, introd., sec. 10; Fraser's *Selections from Berkeley*, 2nd ed., p. 17).

Hume maintains "the impossibility of general ideas, according to the common method of explaining them," holding that "a particular idea becomes general, by being annexed to a general term" (*Human Nature*, i. sec. 7; Green's ed., i. 330).

"It seems to me," says Hume, "not impossible to avoid these absurdities and contradictions" (essay on Sceptical Philosophy, in *Inq. Hum. Und.*, sec. 12), "if it be admitted that there are no such things as abstract in general ideas, properly speaking, but that all general ideas are in reality particular ones attached to a general term, which recalls, upon occasion, other particular ones that resemble in certain circumstances the idea present to the mind. Thus, when the term 'horse' is pronounced, we immediately figure to ourselves the idea of a black or white animal of a particular size or figure; but as that term is also used to be applied to animals of other colours, figures, and sizes, their ideas, though not actually present to the imagination, are easily recalled, and our reasoning and conclusion proceed in the same way as if they were actually present" (*Essays*, ed. 1758, p. 371; Green's ed., ii. 129).

The most recent view as to the psychological aspect of Abstraction is that of *generic images*, maintained by Sully and Galton. According to this view, "what is in my mind is a kind of *composite* images formed by the fusion or coalescence of many images of single objects, in which individual differences are blurred, and only the common features stand out distinctly" (Sully, *Outlines of Psychology*, p. 339; Galton on "Generic Images," *Nineteenth Century*, July 1879). Pollock (*Spinoza*, p. 201) seems to trace the origin of this view in Spinoza (*Ethics*, pt. ii., prop. 40, schol. 1). Spinoza found the source of the gravest errors in philosophy in the *abstract* view of things which is natural to man, *i.e.*, in regarding things not as modes of the Divine Attributes, but as *res completæ*, independent individuals.

John S. Mill censures severely the practice of applying the expression "abstract name" to all names which are the result of *abstraction* or *generalisation*, and consequently to all general names, instead of confining it to the names of attributes. He

uses the term *abstract* as opposed to *concrete* (*Logic*, 2nd ed., i. 35).

ABSURD (*absurdus*, irrational—logically contradictory).—What is contrary to experience cannot be called *absurd*, for there may be facts and laws unknown to us; but the self-contradictory is absurd. The *reductio ad absurdum* is a proof of the irrationality of a position. It is at times adopted as a means of establishing a proposition when the contradictory proposition is reduced to absurdity.

ACADEMY ('Ακαδημία, or 'Ακαδημία)—the name of the gymnasium or garden in which Plato taught; hence his disciples were called "Academics," and the successive schools of Platonists, "The Academies." The garden was a piece of ground left to the inhabitants of Athens by a hero named Academus (or Hecademus) acquired by Plato, and handed down to successive teachers.

The several schools of Platonists are known as the Old, Middle, and New Academies.

The Old Academy consisted mainly of disciples who had been under the teaching of Plato himself. Their first leader was Speusippus, son of Plato's sister; he was succeeded by Xenocrates of Chalcedon, who was held in high estimation among the Athenians. The doctrine of the First Academy was a continuation of Platonic teaching, with some admixture of the Pythagorean philosophy. In all its teaching, prominence was given to Ethics (Zeller's *Plato and the Older Academy*, Alleyne and Goodwin, p. 553; Ueberweg's *History*, i. 134).

The Middle Academy developed a sceptical tendency. The two most conspicuous names connected with it are Arcesilas and Carneades. This Academy belonged to the two centuries preceding the Christian era. Arcesilas is described as the "founder of the Middle Academy, and the first who professedly suspended judgment because of the conflict of evidence" (Diog. Lært., iv. 28). This sceptical tendency, sustained by a keen critical spirit, became from the first characteristic of the School, even while owning high admiration of Plato. Carneades advanced in the same course,

denying the possibility of certainty (Ritter's *History*, iii. 600; Ueberweg's *History*, i. 136).

The New Academy owed its origin to Philo of Larissa, at a time when the Stoics were exercising great influence, and was a reaction against the scepticism of the Middle Academy, returning upon the Platonic doctrine concerning supersensible existence. Antiochus of Ascalon carried this reaction still further. The teaching of the School dealt largely with Ethics, and involved a discussion of the Peripatetic and Stoic Philosophy. Cicero refers to both Philo and Antiochus as teachers whom he had heard and known (*Brutus*, p. 89; *Tusc.*, ii. 3, 9; *Acad. Pr.*, ii. 4; Ueberweg's *Hist.*, p. 136; Ritter's *Hist.*, p. 632; Archer Butler's *Lectures on Ancient Philosophy*, 4th series, ii. 313).

By some, the Middle and New Academies are subdivided, making five academies.

ACATALEPSY (α , privative; and $\kappa\alpha\tau\acute{\alpha}\lambda\eta\psi\iota\varsigma$, *comprehensio*, incomprehensibility), the doctrine held by the Academics of the Middle Academy, and by the sceptics, that human knowledge never amounts to certainty, but only to probability (Plutarch, ii. 1122A, *Πρὸς Κολώτην*; Diog. Lært., ix. 61, Pyrrho). Arcesilas, chief of the second Academy, taught that we know nothing with certainty, in opposition to the dogmatism of the Stoics, who taught $\kappa\alpha\tau\acute{\alpha}\lambda\eta\psi\iota\varsigma$, or the possibility of seizing the truth. Sceptics and Pyrrhonians were called *Acataleptics*. 'Ακαταληψία is synonymous with ἀφασία and ἐποχή (Zeller's *Stoics, Epics, and Skeptics*, p. 408). Bacon repudiates ἀκατάληψις. "We do not meditate or propose *acatalepsy*, but *eucatalepsy*, for we do not derogate from sense, but help it, and we do not despise the understanding, but direct it" (*Nov. Org.*, i., app. 126).—**V. ACADEMY.**

ACCIDENT (*accido*, to happen), a modification or quality which does not essentially belong to a thing, not forming one of its constituent and invariable attributes; accident is in this respect distinguished from *property* (*q.v.*).

"*Accident*, in its widest technical sense (equivalent to *attribute*) is anything that is attributed to another, and can only be conceived as belonging to some substance (in which sense

it is opposed to *substance*); in its narrower and more properly logical sense, it is a predicable which may be present or absent, the essence of the species remaining the same; as for a man to be 'walking,' or 'a native of Paris'" (Whately, *Logic*, bk. ii. ch. v. sec. 4, and index; Aristotle, *Metaphys.*, lib. iv. cap. 30).—*V. SUBSTANCE.*

ACOSMIST (*a*, priv., and *κόσμος*, world), one who theoretically denies the existence of the universe as distinct from the Absolute Being. "Spinoza did not deny the existence of God; he denied the existence of the world; he was consequently an *acosmist*, and not an atheist" (Lewes, *Biog. Hist. of Phil.*, p. 1).

"It has of late been a favourite criticism of Spinoza, to say with Hegel, that his system is not atheism but *acosmism*; and this is true in a speculative point of view. But if I allow of no God distinct from the aggregate of the universe, myself included, what object have I of worship? Or if, according to the latter manifestations of pantheism, the Divine Mind is but the sum total of every finite consciousness, my own included, what religious relation between God and man is compatible with the theory? And, accordingly, the pantheism of Hegel has found its natural development in the atheism of Feuerbach" (Mansel, *Prol. Log.*, p. 279, note, 2nd ed., p. 298).

The philosophy of Berkeley has been erroneously described as *acosmism*.

ACROAMATIC (from *ἀκροάομαι*, to hear).—Designed for the hearing of the initiated, applied to the lessons which were *Esoteric* (*ἐσωτερικός*) in contrast with the *Exoteric*, those given to general audiences (*ἐξωτερικός*).

Plutarch (in *Alexand.*) and Aulus Gellius (l. xx. c. 4) maintained that the *acroamatic* works had natural philosophy and logic for their subjects, whereas the *exoteric* treated of rhetoric, ethics, and politics. Strabo (l. 13, p. 608), Cicero (*Ad Atticum*, 13, 19), and Ammonius Herm. (*Ad Categor. Aristot.*), maintain that they were distinguished, not by difference of subject, but of form; the *acroamatic* being discourses, the *exoteric* dialogues. Simplicius (*Ad Categor. in Proem.*) thus characterises the *acroamatic* in contradistinction to the *exoteric*

works: "distinguished by pregnant brevity, closeness of thought, and quickness of transitions," from his more expanded, more perspicuous, and more popular productions.

Buhle has a *Commentatio de Libris Arist., Exot. et Acroam.*, in his edition of the works of Aristotle, 5 vols. 8vo, Deux Ponts, 1791, p. 142.

"In Aristotle's works the word *exoteric* does not occur (yet cf. *Analyt. Post.*, i. 10, p. 76, bk. 27, ὁ ἔσω λόγος as ὁ ἐν τῇ ψυχῇ, in opposition to ἔξω λόγος); but *exoteric* is employed in the sense of 'outwardly directed, addressed to the respondent (πρὸς ἕτερον)'" (Ueberweg's *Hist.*, i. 143).

"In the life of Aristotle, by Mr Blakesley" (published in the *Ency. Met.*), "it has been shown, we think most satisfactorily, that the *acroamatic* treatises of Aristotle differed from the *exoteric*, not in the abstruseness or mysteriousness of their subject-matter, but in this, that the one formed part of a course or system, while the other were casual discussions or lectures on a particular thesis" (*Mor. and Met. Phil.*, by Maurice, note, p. 165).

ACTION.—(1) Exercise of vital energy; (2) intelligent, self-directed exercise; Aristotle defines voluntary action as "that the ἀρχὴ of which is in the agent himself" (*N. Ethics*, iii. i. 20); (3) ethical,—action when subjected to moral law. In so far as moral actions are completed, or efficient, in the sense of reaching an end, they have a threefold form—(a) the motive or inward disposition impelling to action, (b) the overt act in which the inward motive expresses itself, (c) the purpose or contemplated end for attainment of which the action is done. Each one of these is in an ethical sense an action, i.e., activity subject to moral law.

ACTUAL (*quod est in actu*) is opposed by Aristotle to *potential*. A rough stone is a statue *potentially*; when chiselled, *actually*.

"The relation of the *potential* to the *actual* Aristotle exhibits by the relation of the raw material to the finished article; of the unemployed carpenter to the one at work upon his building; of the individual asleep to him awake. *Potentially* the seed is the tree, but the grown-up tree is it *actually*; a potential

philosopher is the philosopher not philosophising; even before the battle the better general is the potential conqueror; in fact, everything is potential which possesses a principle of motion, of development, or of change; and which, if unhindered by anything external, will be of itself. *Actuality* or *entelechy*, on the other hand, indicates the perfect act, the end as gained, the completely actual (the grown-up tree, *e.g.*, is the *entelechy* of the seed-corn), that activity in which the act and the completeness of the act fall together, *e.g.*, to see, he thinks and he has thought, he sees and he has seen, are one and the same, while in these activities which involve a becoming, *e.g.*, to learn, to go, to become well, the two (the act and its completion) are separated" (Schwegler, *Hist. of Phil.*, Stirling, p. 108; *cf.* Lotze, *Metaphysic*, bk. i. sec. 41).—V. REAL.

ACTIVE POWERS was the term employed by the early Scottish philosophers to designate the moral powers, as contrasted with the "Intellectual Powers." "The Active Powers," in contrast with the "Intellectual" or "Cognitive" powers, were regarded as the powers concerned with human action, as contrasted with thought. The designations are inappropriate, inasmuch as the intellectual powers are eminently active, and the moral powers must include intellectual as a first requisite (Reid's *Intellectual Powers*, essay i. ch. vii.; Reid's *Active Powers*, introd., and essay i. ch. i.; Stewart's *Philosophy of the Active and Moral Powers of Man*, Introd. Works, vi. 117; Hamilton's *Reid*, notes 242A, 511A).

ADEQUATE (*adequo*, to equal), sufficient, applied to our cognitions. Our knowledge of an object is adequate or complete when it extends to all the properties of that object.

Spinoza says:—"By an adequate idea, I understand an idea which, considered in itself, without relation to the object, possesses all the properties and intrinsic characters of a true idea" (*Ethics*, pt. ii. defin. 4). He explains:—"I say *intrinsic*, in order to exclude that work which is *extrinsic*, namely, the agreement between the idea and its object (*ideato*)" (*Ethics*, pt. ii. defin. 4). According to prop. 35, "Falschood consists in the absence of the cognition which inadequate or imperfect and confused ideas involve."

ADMIRATION—Delight in contemplation of an object involving (a) a standard, (b) comparison, (c) sense of agreeable feeling, attracting the mind towards the object awakening such feeling. "We shall find that *admiration* is as superior to surprise and wonder, simply considered, as knowledge is superior to ignorance; for its appropriate signification is that act of the mind by which we discover, approve, and enjoy some unusual species of excellence" (Cogan, *On the Passions*, pt. i. ch. ii; Buckle, *History of Civilisation*, ii. 188).

ADSCITITIOUS (from *ad-sciso*, to seek after), that which is added or assumed. "You apply to your hypothesis of an *adscititious spirit*, what he (Philo) says concerning this πνεῦμα θεῖον, divine spirit or soul, infused into man by God's breathing" (Clarke, *Letter to Dodwell*).

ÆSTHETICS (αἰσθησις,) feeling as dependent on physical sensibility, perception by the senses,—applied by Plato (*Phædo*, cxi.) to vision of an intellectual order, αἰσθησις τῶν θεῶν. (1) Commonly, the science of the beautiful, or philosophy of the fine arts. (2) In the philosophy of Kant it is kept to its primary meaning, as concerned with knowledge obtained through the sensory.

Æsthetics is the science of the beautiful or the philosophy of the fine arts. Philosophy deals with the principles of all experience and activity; and, as concerned with the experience of the beautiful and with its representation or creation in works of arts, it is called *Æsthetics*. Its sphere is, in one sense, a subdivision of the province of Psychology, which deals with all forms of experience. And, indeed, æsthetical investigations form no small part of many psychological treatises, e.g., the works of Stewart, Reid, and Hamilton. Properly, however, the point of view of æsthetics is different from that of psychology. The latter regards æsthetic experience as one among other forms of human experience, to be classified accordingly. *Æsthetics*, on the other hand, seeks for a philosophy of this particular form of experience, seeks, on the one hand, to account for its subjective nature as experience, by tracing the principles that underlie it; and, on the other, to answer the question whether there is an objective correlate to

the experiences,—whether there is or is not an absolute beauty. It is only recently however, and especially in Germany, that the province of *Æsthetics* has been clearly defined. Baumgarten was the first definitely to limit its sphere.

Here, as elsewhere, it is to Aristotle that we owe the elements of subsequent teaching. He laid the foundation of *Æsthetics* in his *Rhetoric* and *Poetics*. Plato had not distinguished the *Æsthetical* from the *Ethical*, but had found the two in his corruption of *καλοκάγαθία*. He had also, in his *Republic*, cast discredit upon the work of the artist, which he regarded as mere imitation. He had, however, maintained the existence of an absolute beauty—*αὐτὸ τὸ καλόν*—the archetypal idea in which all beautiful things participated. Aristotle, on the contrary, distinguished carefully between the conceptions of the beautiful and the good, defended the calling of the artist, and denied the existence of an absolute good.

In modern times, the greatest work on *Æsthetics* is Kant's *Critique of Judgment*, which is an account of the necessary and universal principles of æsthetic experience, an application of the critical or transcendental principle to the particular form of experience. Kant has been followed by Schelling and Hegel, and by the transcendental school generally. Besides discussions specifically philosophical, there is a great deal of æsthetical investigation in the works of Lessing (who, in his critical accounts of individual works of art, has emphasised general æsthetic principles), Goethe, Schiller, Jean Paul, and in England in the writings of Ruskin. Bain and Spencer have applied the principle of evolution to *Æsthetics* (Baumgarten's *Æsthetica*, 2 vols., Frankfort, 1750-8; Burke, *The Sublime and Beautiful*; Alison, *On Taste*; Lord Jeffrey, art. "Beauty," *Ency. Brit.*, 8th ed.; Bain, *Emotions and Will*; Cousin, *True, Beautiful, and Good*; Spencer, *Principles of Psychology*, ii. 627; Sully, *Outlines of Psychology*, p. 531, and art. "Æsthetics," *Ency. Brit.*, 9th ed., Danieron, *Cours de Æsthetique*; M'Vicar, *The Philosophy of the Beautiful*. For an account of the various theories: Bain, *Mental and Moral Science*; and for German theories, Lotze, *Geschichte der Æsthetik Deutschlands*).

The term TRANSCENDENTAL ÆSTHETIC is used by Kant, in

its etymological sense, to denote the science of the *à priori* conditions of sensuous experience, *i.e.* of perception. This is the title of the first part of the *Critique of Pure Reason*, where is an account of the principles which make perception possible, *viz.*, Space and Time. Kant says:—"The science of all the principles of sensibility, *à priori*, I call transcendental æsthetic" (*Critique of Pure Reason*, pt. i., note; Meiklejohn, p. 22). By *transcendental æsthetic*, Kant means all that is essential to the action of the sensory, distinct from physical, sensibility, and the sensation consequent upon impression made on the sensory organ. What is involved besides he designates "the pure forms of sensuous intuition,"—these are space and time.

ÆTIOLOGY (*αἰτία*, cause; *λόγος*, discourse), a philosophy of causes. In Rhetoric, the form of speech in which the reason is given, along with a statement made.

AFFECTION (*ad* and *facio*).—(1) *Passive*, an impression made on the sensory system. (2) *Active*, a disposition towards persons, urging the agent to seek the good or hurt of others. The affections are motive forces, in close relation to the intelligent nature, and superior to desire.

"There are various principles of action in man which have *persons* for their immediate object, and imply, in their very nature, our being well- or ill-affected to some *person*, or at least to some animated being. Such principles I shall call by the general name of *affections*, whether they dispose us to do good or hurt to others" (Reid, *Active Powers*, essay iii. pt. ii. ch. iii.-vi.).

One of the most important divisions of empirical psychology as concerned with Feeling, is that which treats of the natural history of the affections, or the laws of their development (Bain's *Emotions and Will*, ch. iii.; Cyple's *Process of Human Experience*, ch. x. p. 267; Sully's *Outlines of Psychology*, p. 489).

AFFERENT.—The name applied to the sensory nerves, which carry the effect of impression from the surface of the body to the nerve centres—spinal cord, medulla, or cerebrum.

AFFIRMATION (*κατάφασις*) is the attributing of one thing to another, or the asserting that something exists. The

antithesis of Negation. A mental affirmation is a judgment; expressed, it becomes a proposition. (See these terms.)

A FORTIORI.—Argument from the greater to the less, as when that which has been proved to hold true of a whole class is inferred to hold true of a part of the class. This form of argument is especially common in mathematics.

AGNOIOLOGY (λόγος τῆς ἀγνοίας, theory of true ignorance), a section of Philosophy intermediate between Epistemology and Ontology. "Absolute Being may be that which we are ignorant of. We must, therefore, examine and fix what ignorance is, what we are and can be ignorant of" (Ferrier, *Inst. of Metaph.*, 48).—*V.* AGNOSTICISM.

AGNOSTICISM.—A philosophic theory, based on the relativity of human knowledge, which maintains that the Absolute Being, as the Unconditioned, cannot be in any sense known; or, as Herbert Spencer states it—"that the power which the Universe manifests to us is utterly inscrutable" (*First Principles*, p. 46). The term is sometimes employed, in a wider sense, to describe a theory which denies the existence of the Absolute as unknown. But this use of the term is inappropriate, for such a theory is not a logical deduction from the former, since we cannot reason from ignorance to non-existence, and what is implied is Gnosticism rather than Agnosticism.

The popular Agnosticism of the present day, both philosophic and scientific in its historic associations, rests on the relativity of human knowledge, favouring a suspension of judgment or scepticism as to the transcendent or supersensible. While the relativity of human knowledge is matter of agreement, thinkers differ according as they hold or deny the rational certainty of an intelligent First Cause, according as they recognise *belief* based on necessary principles of the reason, or admit the certainty only of that which is directly *known* as present to the mind.

Hamilton, while denying that the Infinite Being can by us be known, maintained that the existence must by us be believed (*Discussions*, p. 15; Letter to Calderwood, *Metaph.*, ii., app., p. 530). So it is with Mansel (*Limits of Religious*

Thought and Letters, Lectures, and Reviews, pp. 157, 189). J. S. Mill, while declining assent to belief in an Infinite Being, specially insisted on the relativity of knowledge involving the impossibility of knowledge of the Absolute (*Examination of Hamilton*, pp. 72-129). Herbert Spencer, pointing to the reconciliation of religion and science, opens the *First Principles* with special treatment of the Unknowable (pp. 1-123).

ALTRUISM.—The theory which makes a regard to the happiness of others the basis of moral distinctions, or constitutes a phase of the Utilitarian or Greatest Happiness theory, standing in contrast to Egoism, which was the earlier phase of the doctrine. Egoism makes personal happiness the end of life; Altruism insists that we must find our own happiness in that of others. In contrast not only with the Egoism of Hobbes, but with the more benevolent scheme of Bentham, both Comte and Mill held “that the more *altruistic* any man’s sentiments and habits of action can be made, the greater will be the happiness enjoyed by himself as well as by others” (Sidgwick’s *Outlines of the History of Ethics*, p. 257).

J. S. Mill says:—“Pleasure and freedom from pain are the only things desirable as ends” (*Utilitarianism*, p. 10). But, he adds, the “standard is not the agent’s own greatest happiness, but the greatest amount of happiness altogether” (*ib.*, p. 16). “Utility would enjoin that laws and social arrangements should place the interest of any individual as nearly as possible in harmony with the interest of the whole” (*ib.*, p. 25).

AMBITION (from *ambio*, to go about seeking place or power), desire of power,—regarded as one of the primary or original desires of human nature (Reid, *Active Powers*, essay iii. pt. ii. ch. ii.; Stewart, *Active Powers*, bk. i. ch. ii. sec. 4).

AMPHIBOLY (ἀμφιβολία, ambiguity).—A proposition of a doubtful or double sense. Aristotle distinguishes it from *equivocatio*, ὁμωνυμία, ambiguity in terms taken separately (*The Sophistical Elenchi*, ch. iv.; *Organon*, transl. Owen, ii. 544; *Opera*, ed. Buhle, iii. 528; Whately’s *Logic*, bk. iii. sec. 10).

The term is applied by Kant to the confounding of pure notions of the understanding with objects of experience, and attributing to the one characters and qualities which belong to

the other (Kant's *Critique of Pure Reason*, Transcendental Analytic of Principles,—bk. ii. ch. iii. app., entitled, “Of the equivocal nature or *Amphiboly* of the conceptions of reflection from the substitution of the transcendental for the empirical use of the understanding”).

ANALOGUE (*ἀνάλογος*, proportionate).—That which corresponds with another, resembling in nature, structure, or function. “By an *Analogue* is meant an organ in one animal having the same function as a different organ in a different animal. The difference between *Homologue* and *Analogue* may be illustrated by the wing of a bird and that of a butterfly. as the two totally differ in anatomical structure, they cannot be said to be *homologous*, but they are *analogous* in function, since they both serve for flight” (M'Cosh, *Typical Forms*, p. 25).

In Logic a term is *analogous* whose single signification applies with equal propriety to more than one object—as the *leg* of the table, the *leg* of the animal (Whately, *Logic*, bk. iii. sec. 10).

ANALOGY (*ἀναλογία*, proportion).—An argument from Analogy is a defensive argument, in support of any suggested hypothesis, drawn from similarity of phenomena recognised in different relations. The argument from analogy is not constructive in nature, being competent only for defence, or suggestion.

It has been “defined ‘the similarity of ratios or relations.’ It is the inference that, because two phenomena resemble in *some* points, therefore they resemble in *all*. Its value depends on the *importance* of the points of resemblance observed, and on their proportion to the points of difference and to the whole points. In popular language we extend the word to resemblances of things as well as relations. Analogy in this sense has exercised an immense influence on the formation of language. In innumerable cases visible or tangible things lend their names to invisible and spiritual, from a resemblance more or less striking between them” (Thomson, *Laws of Thought*, 3rd ed., p. 327).

“Analogy does not mean the similarity of two *things*, but the similarity or sameness of two *relations*. . . . If A has

the same relation to B which C has to D, then there is an *analogy*. If the first relation be well known, it may serve to explain the second, which is less known; and the transfer of name from one of the terms in the relation best known to its corresponding term in the other, causes no confusion, but on the contrary tends to remind us of the similarity that exists in these relations, and so assists the mind, instead of misleading it" (Coplestone, *Four Discourses*, p. 122).

"As *analogy* is the resemblance of ratios (or relations), two things may be connected by *analogy*, though they have in *themselves* no *resemblance*, thus as a sweet taste gratifies the palate, so does a sweet sound gratify the ear, and hence the same word, 'sweet,' is applied to both, though no flavour can resemble a sound in itself. To bear this in mind would serve to guard us against two very common errors in the interpretation of the analogical language of Scripture:—(1) The error of supposing the things themselves to be similar, from their bearing similar relation to other things; (2) the still more common error of supposing the *analogy* to extend further than it does, or to be more complete than it really is, from not considering *in what* the analogy in each case consists" (Whately, *Logic*, bk. iii. sec. 10).

"The meaning of *analogy* is resemblance, and hence all reasoning from one case to others resembling it might be termed *analogical*; but the word is usually confined to cases where the resemblance is of a slight or indirect kind. We do not say that a man reasons from *analogy* when he infers that a stone projected into the air will fall to the ground. The circumstances are so essentially similar to those which have been experienced a thousand times, that we call the cases *identical*, not *analogical*. But when Sir Isaac Newton, reflecting on the tendency of bodies at the surface of the earth to the centre, inferred that the moon had the same tendency, his reasoning, in the first instance, was *analogical*.

"By some writers the term has been restricted to the resemblance of relations: thus knowledge is said to bear the same relation to the mind as light to the eye—to enlighten it. But although the term is very properly applied to this

class of resemblances, I think it is not generally confined to them" (Sam. Bailey, *Discourses*, p. 181, 8vo, London, 1852).

Berkeley distinguishes between *Metaphorical* and proper analogy. "*Analogy* is a Greek word used by mathematicians to signify a similitude of proportions. For instance, when we observe that two is to six as three is to nine, this similitude or equality of proportion is termed *analogy*. And, although proportion strictly signifies the habitude or relation of one quantity to another, yet, in a looser and translated sense, it hath been applied to signify every other habitude, and consequently the term *analogy*, all similitude of relations or habitudes whatsoever. Hence the schoolmen tell us there is *analogy* between intellect and sight, forasmuch as intellect is to the mind what sight is to the body: and that he who governs the state is analogous to him who steers a ship. Hence a prince is analogically styled a pilot, being to the state as a pilot is to his vessel. For the further clearing of this point, it is to be observed, that a twofold *analogy* is distinguished by the schoolmen *metaphorical* and *proper*. Of the first kind there are frequent instances in Holy Scripture, attributing human parts and passions to God. When He is represented as having a finger, an eye, or an ear; when He is said to repent, to be angry, or grieved, every one sees the *analogy* is merely *metaphorical*; because these parts and passions, taken in the proper signification, must in every degree necessarily, and from the formal nature of the thing, include imperfection. When, therefore, it is said the finger of God appears in this or that event, men of common sense mean no more, but that it is as truly ascribed to God as the works wrought by human fingers are to man; and so of the rest. But the case is different when wisdom and knowledge are attributed to God. Passions and senses, as such, imply defect; but in knowledge simply, or as such, there is no defect. Knowledge, therefore, in the proper formal meaning of the word, may be attributed to God proportionally, that is, preserving a proportion to the infinite nature of God. We may say, therefore, that as God is

infinitely above man, so is the knowledge of God infinitely above the knowledge of man, and this is what Cajetan calls *analogia proprie facta*. And after the same *analogia* we must understand all those attributes to belong to the Deity, which in themselves simply, and as such, denote perfection" (Berkeley, *Min Phil.*, Dialog. 4, Fraser, *Selections from Berkeley*, 2nd ed., p. 258).

Kant, in his *Transcendental Analytic*, bk. ii. ch. ii. sec. 3, treats of "Analogies of Experience," saying that "experience is possible only through the representation of a necessary connection of perceptions." The analogies of experience referred to are these three—the permanence of substances through all changes in phenomena,—all changes take place according to the law of the connection of cause and effect,—all substances perceived in space, coexist in a state of complete reciprocity of action (*Critique of Pure Reason*, Meiklejohn, p. 132; Max Muller, ii. 155).

Analogy and Induction.—In *Induction* we argue from *some* cases observed to *all* cases of the same phenomena. In *Analogy* we argue from *partial* to *complete* resemblance between two cases, from *some* points observed to resemble to *all* points (Locke, *On Human Understanding*, bk. iv. ch. xvi. sec. 12; Butler, *Analogy of Religion*; Beattie's *Essay on Truth*, pt. i. ch. ii. sec. 7; Stewart's *Elements*, vol. ii. ch. iv. sec. 4; Stewart's *Essays*, v. ch. iii.; Mill, *Logic*, bk. iii. ch. xx.; Ueberweg, *Logic*, p. 491, transl.).

ANALYSIS (ἀνὰ λύω, *resolutio*).—Separation of the parts of a complex whole, either actually, as in physical structure; or by observation and comparison, as in the phenomena of consciousness. In mental philosophy, the resolution of our experience into its simple or original elements, with a view to reconstruction of these with full regard to their relations in the mental state to which they belong.

In Empirical Psychology, the first requisite is *Introspection*, (*q.v.*); the next comparison, distinguishing the elements present in a complex experience. Analysis is the first requisite for interpretation of experience, for attempting a philosophy of the development of mind, and for determining the possibilities of

human life. Thus philosophic procedure must in the first instance be analytic.

Still more important for the progress of philosophy is the synthesis afterwards effected.—V. SYNTHESIS.

Analysis is *Real*, when a chemist separates two substances; *Logical*, when we consider properties separately, as the properties of the sides and angles of a triangle; *Psychological*, when we distinguish the elements which constitute a state of consciousness; *Metaphysical*, when we distinguish the elements which make experience possible.

Abstraction is *analysis*, since it is decomposition, but what distinguishes it is that it is exercised upon qualities which by themselves, or out of relation to others, have no real existence.

“*Hac analysi licebit, ex rebus compositis ratiocinatione colligere simplices; ex motibus, vires moventes; et in univsum, ex effectis causas; ex causisque particularibus generales; donec ad generalissimas tandem sit deventum*” (Newton, *Optics*, 2nd ed. p. 413).

Reid's *Inquiry*, Intro. (Hamilton, p. 99); Stewart's *Elements*, pt. ii. ch. iv.; Hamilton's *Metaph.*, i. 98, lect. vi.; Sully, *Outlines of Psychology*, app. i.

ANALYTICS (Τὰ Αναλυτικά).—The title ANALYTICS given to a portion of the *Organon*, the logical treatises of Aristotle. It does not appear that Aristotle gave this title to the Prior and Posterior Analytics when the books were written. Twice, however, in the *Metaphysics* he uses the term ἀναλυτικά as applicable to the division of logic involved. Once (*Metaph.*, iv. 3) he charges some philosophers with ignorance of analytics, alleging that they hold their position δι' ἀπαιδευσιν τῶν ἀναλυτικῶν. And, more directly, referring to his own Logical Treatises, he says (*Metaph.*, vii. 12) that no statement has been made concerning definition in the Analytics, ἐφ' ὅσον ἐν τοῖς ἀναλυτικοῖς περὶ ὁρισμοῦ μὴ εἴρηται. The title τὰ ἀναλυτικά was afterwards applied to the books now bearing the name, which treat of the analysis of thought, the Prior dealing with the syllogism, the Posterior with proof and the conditions of knowledge.

ANIMA MUNDI (soul of the world).—The hypothesis of a force, immaterial, and inseparable from matter, giving to matter its form and movement, which is coeval with the birth of philosophy. Pythagoras obscurely acknowledged such a force, holding that the world was living and intelligent, *κόσμον ἔμψυχον, νοερόν* (Diog. Laert., bk. viii. p. 25). From Pythagoras it passed into the system of Plato, who held that pure spirit, the seat of eternal idea, could not act directly upon matter. In the *Timæus*, “the most obscure” of the dialogues, as Jowett says, in which the influence of Pythagoras is conspicuous, Plato gives an account of the origin of the world, teaching that “the world became a living soul and truly rational—*τὸν κόσμον ζῶον ἔμψυχον, ἐννουν*—through the providence of God,” (*Timæus*, 30). This is in accordance with the fixed plan of the Creator, for he “put intelligence in soul, and soul in body, and framed the universe to be the best and fairest work in the order of nature.” The soul of the world was the source of all life, sensibility, and movement. The doctrine was prominent in the teaching of the Stoics, in whose system the *anima mundi* usurped the place and even the name of God. It is closely allied to the prevailing pantheism of their thought. Straton of Lampsacus identified it with *nature*. The School of Alexandria, on the other hand, adhering to the views of Plato, recognised intelligence and Deity as above the *anima mundi*, which they conceived as intermediate between the Creator and His works. The hypothesis of the *anima mundi* was not entertained by the scholastic philosophers. But it reappeared under the name of *Archæus*—the vital principle—in the systems of Agrippa of Nettesheim, Paracelsus, and Van Helmont. In more recent times Henry More recognised a *principium hylicum*, and Cudworth a *plastic nature*, as the universal agent of physical phenomena, the cause of all forms of organisation, and the spring of all the movements of matter.

ANIMISM.—A doctrine of soul as distinct from body, and separated from it at death. For the extent to which such a doctrine is believed among uncivilised tribes, v. Tylor's *Primitive Culture*, 2 vols., a valuable store of evidence, gathered from all available sources.

ANTECEDENT (*antecedo*, to go before).—In a relation, whether logical or metaphysical, the first term is the *antecedent*, the second the *consequent*. Thus, in the relation of causality, the cause is the *antecedent*, and the effect the *consequent*.

“*Antecedent* is that part of a conditional proposition on which the other depends” (Whately, *Logic*, bk. ii. ch. iv. sec. 6).—*V.*
PROPOSITION HYPOTHETICAL.

ANTHROPOLOGY (*ἄνθρωπος* and *λόγος*, the science of man).—Among naturalists it means the natural history of the human species. According to Latham (*Nat. Hist. of Varieties of Man*), *anthropology* determines the relations of man to the other mammalia; *ethnology*, the relations of the different varieties of mankind to each other (p. 559). In Germany the term includes all the sciences which in any point of view relate to man—soul and body—individual and species—facts of history and phenomena of consciousness—rules of morality as well as material interests.

“*Anthropology* is the science of man in all his natural variations. It deals with the mental peculiarities which belong specifically to different races, ages, sexes, and temperaments, together with the results which follow immediately from them in their application to human life” (Morell, *Psychology*, p. 1).

Hamilton's *Metaph.*, lect i. vol. i. p. 136; Tylor's *Anthropology*; *Journal of Anthropological Institute*, from 1871, - a store of facts concerning the natural history of the human race; *Moral Anthropology*; Kant's *Ethics*, Semple, 3rd ed., p. 165.

ANTHROPOMORPHISM (*ἄνθρωπος*, man; *μορφή*, form). The representation of Divine attributes as if they were only human attributes enlarged.

The ascribing of bodily members to Deity is wittily exposed by Cicero (*De Nat. Deor.*, lib. i. cap. 27). Spinoza, holding that all things are in God, maintained that God is an extended being (*Ethics*, pt. ii. prop. ii.); but, he adds, when referring to the fact that “some persons feign to themselves an image of God consisting like a man of a body and mind, and susceptible of passions,” “all who ever thought of the Divine nature in any proper way, deny that God is corporeal . . . nothing

can be more absurd than a conception of the kind associated with God, the absolutely infinite being" (pt. i. prop. xv. *schol.*).

"We ought not to imagine that God is clothed with a human body, as the *Anthropomorphites* asserted, under colour that that figure was the most perfect of any" (Malebranche, *Search after Truth*, bk. iii. ch. ix.).

Hume applies the name to those who think the mind of God is like the mind of man (*Dial. on Nat. Relig.*, pts. iv., v.), in which Anthropomorphism is critically examined, as opposed to the doctrine of the "mysterious, incomprehensible nature of the Deity" presented by "Demea," and the views supported by "Cleanthes," that though the Deity "possesses many powers and attributes of which we can have no comprehension," "our ideas, so far as they go," must be "just and adequate, and correspondent to his real nature" (Hume, *Works*, Green's ed., ii. 405). That the first cause must be absolute, infinite Intelligence, is clear on the admission of a first cause; but that the absolute intelligence can be such in nature and action as human intelligence is impossible.

V. Cousin, *Hist. of Philos.*, Wight, i. 31; Fairbairn's *Studies in Philosophy*, p. 51.

ANTICIPATION (*anticipatio*, *πρόληψις*).—The power of the mind to project itself from the known into the unknown, in the expectation of finding what it is in search of. The term was first used by Epicurus to denote a general notion, which enables us to conceive beforehand of an object which has not come under the cognisance of the senses. But general notions, being formed by abstraction from a multitude of particular notions, were all originally owing to sensation, or mere generalisations *à posteriori*. Buhle (*Hist. de la Phil. Mod.*, tom. i. pp. 87, 88) gives the following account:—"The impressions which objects make on the senses, leave in the mind traces which enable us to recognise these objects when they present themselves anew, or to compare them with others, or to distinguish them. When we see an animal for the first time, the impression made on the senses leaves a trace which serves as a type. If we afterwards see the same

animal, we refer the impression to the type already existing in the mind. This type, and the relation of the new impression to it, constituted what Epicurus called the *anticipation of an idea*. It was by this *anticipation* that we could determine the identity, the resemblance or the difference of objects actually before us, and those formerly observed."

The language of Cicero (*De Nat. Deor.*, lib. i. cap. 16) seems to indicate that by Epicurus the term *πρόληψις* was extended to what is supersensual, and included what is now called knowledge *a priori*. "*Quæ est enim gens, aut quod genus hominum quod non habeat, sine doctrina anticipationem quandam Deorum? quam appellat πρόληψιν Epicurus, id est, antceptam animo rei quandam informationem, sine qua nec intelligi quidquam, nec quærî, nec disputari potest.*" And according to Diogenes Laertius (lib. vii. secs. 51, 53, 54), the Stoics defined *πρόληψις* to mean "a natural conception of the universal." This definition was not, however, adopted by all. Hamilton says (*Reid's Works*, note A, p. 771): "It is not to be supposed that the κοινὰ ἔννοιαι, φαισικαὶ πρόληψεις, of the Stoics, far less of the Epicureans, were more than generalisations *à posteriori*. Yet this is a mistake, into which, among many others, Lipsius and Leibnitz have fallen in regard to the former" (Zeller, *Hist. of Greek Phil.*, Stoics, Epicureans, and Sceptics, Eng. transl., for the Stoic teaching, pp. 79, 89, of the Epicureans, 103, 439; Ritter's *Hist. of Anc. Phil.*, Eng. transl., iii. 426).

In his "Transcendental Philosophy," *Anticipations of Perception* are the second class of Kant's "principles of pure understanding." Though the matter of sensation "is just that element of knowledge which cannot be at all anticipated" but must be waited for, as the *given*, yet "if there should be something in every sensation that could be known *a priori* as sensation in general, without any particular sensation being given, this would, in a very special sense, deserve to be called Anticipation." In all phenomena the *Real*, that which is an object of sensation, has Intensive Quantity, *i.e.*, a degree of influence on sense (*Critique of Pure Reason*, Transc. Analytic, bk. ii. ch. ii. sec. 3, Meiklejohn, p. 125; Max Müller, ii.

147; Schwegler's *History*, p. 224; J. S. Mill's "Psychological Theory" postulates first that the human mind is capable of expectation," *Examination of Hamilton*, 3rd ed., p. 219).

ANTINOMY (*ἀντί*, against; *νόμος*, law), the opposition of one law or rule to another law or rule. In Kant's philosophy, it designates the conflict or self-contradiction (held by Kant to be inevitable) which emerges when the Reason deals with problems concerning the universe. It arises, according to Kant, from the attempt of *Understanding* to solve the problems of *Reason*, from the attempt to construct, by aid of the *categories* of the former, objects adequate to the *ideas* of the latter (*Critique of Pure Reason*, Transcendental Dialectic, bk. ii. ch. ii.; Menckeljohn's *Translation*, p. 266; Max Muller, ii. 351). The following are his antinomies in cosmology:—

Thesis.

I.

Antithesis.

The world has an origin in time, and is *quoad* space shut up in boundaries.

The world has no beginning and no bounds.

II.

Every compound substance in the world consists of simple parts; and there is nothing but the simple, or that which is compounded from it.

No composite consists of simple parts; and there exists now *what* simple in the world.

III.

It is requisite to assume a *Free* causality to explain the phenomena of the world.

There is no Freedom. Everything in the world happens according to the laws of nature.

IV.

To the world there belongs somewhat which, either as its part or its cause, is an absolutely necessary being.

There exists no absolutely necessary Being, neither in the world nor out of the world, as its cause.

Semple (Intro. to *Metaphysic of Ethics*, 1st ed., p. 95), says:—At the bottom of the two first *antinomies* lies the absurdity of "transferring to the world in itself predicates which can be applied only to a world of phenomena." We get rid of the difficulty by declaring that both thesis and antithesis are

false. With regard to the third, an act may be in respect of the causality of reason "a first beginning," while yet, in respect of the sequences of phenomena, it is no more than "a subordinate commencement," and so be, in the first respect, free; but in the second, as mere phenomena, fettered by the law of the causal nexus. "The fourth *antinomy* is explained in the same manner, for when the cause *qua* phenomenon is contradistinguished from the cause of the phenomena, so far forth as this last may be a thing in itself, then both propositions may consist together."

ANTIPATHY (*ἀντί, πᾶθος*, dislike, aversion of feeling).—An aversion entertained, whether voluntarily or involuntarily, to some sensible object, or towards another person. There is spontaneous antipathy, consequent on sensation; and acquired or voluntarily induced antipathy, depending on sentiment (Locke, *Essay*, bk. ii. ch. xxxiii. sects. 7, 8; Calderwood's *Handbook of Moral Philosophy*, p. 161; Bain's *Emotions and Will*, 3rd ed., p. 183; Sully, *Outlines of Psychology*, p. 582).—*V.* SYMPATHY.

APAGOGICAL. - *V.* OSTENSIVE.

A PARTE ANTE, and **A PARTE POST.** - These two expressions, from the scholastic philosophy, refer to Eternity. Man can only conceive of Eternity as consisting of two parts; the one without limits in the past, *a parte ante*; and the other without limits in the future, *a parte post*;—both predicable of the Divine existence. - - *V.* ETERNITY.

APATHY (*ἀ*, privative; and *πάθος*, passion). (1) The absence of passion; (2) a voluntary control of feeling preventing its natural rise; (3) indifference to the higher motives which should govern action; moral inertia--lack of energy (Kant's *Ethics*, Abbot, 319).

According to the Stoics, *apathy* meant the extinction, or, at least, severe restriction, of the passions by ascendancy of reason, according to the demands of their austere rule of life. "Those demands, developed to their legitimate consequences, require the unconditional extirpation of the whole sensuous nature, an extirpation which was originally expressed by the much vaunted apathy" (Zeller's *Stoics*, &c., transl., p. 273).

"By the perfect *apathy* which that philosophy (the Stoic)

prescribes to us, by endeavouring not merely to moderate but to eradicate, all our private, partial, and selfish affections, by suffering us to feel for whatever can befall ourselves, our friends, our country, not even the sympathetic and reduced passions of the impartial spectator,—it endeavours to render us altogether indifferent and unconcerned in the success or miscarriage of everything which nature has prescribed to us as the proper business and occupation of our lives" (Smith, *Theory of Moral Sentiments*, pt. vii. sec. 2). This is, however, probably an exaggeration of the actual teaching of the Stoics (see Zeller, *Hist. of Greek Phil.*, Stoics, Epicureans, and Sceptics, Eng. transl., p. 273; cf. Ueberweg, *Hist. of Phil.*, i. 198).

"In general, experience will show, that as the want of natural appetite to food supposes and proceeds from some natural disease; so the *apathy* the Stoics talk of, as much supposes or is accompanied with something amiss in the moral character, in that which is the health of the mind" (Butler, Sermon v.)—

"In lazy *apathy* let Stoics boast,
Their virtue fix'd; 'tis fix'd as in a frost,
Contracted all, retiring to the breast;
But strength of mind is exercise, not rest."—POPE.

APHORISM (*ἀφορίζω*, to bound or limit).—A precise, sententious saying; e.g., "It is always safe to learn from our enemies, seldom safe to instruct even our friends."

Heraclitus is known by his *aphorisms*, which are among the most brilliant of those

"Jewels five words long,
That on the stretched forefinger of all time,
Sparkle for ever."

Among the most famous are—War is father of all things, *i.e.*, all things are evolved by antagonistic force. No man can bathe twice in the same stream, *i.e.*, all things are in perpetual flux.

Bacon says:—"The first and most ancient inquirers into truth were wont to throw their knowledge into *aphorisms*, or short, scattered, unmethodical sentences" (*Nov. Organ.*, bk. i. sec. 86). And the *Novum Organum* itself is written in *aphorisms*.

Coleridge, *Aids to Reflection*, i. 16, edit. 1848, note ; 5th ed. p. 17:—"In order to get the full sense of a word, we should first present to our minds the visual image that forms its primary meaning. . . . This twofold act of circumscribing and detaching, when it is exerted by the mind on subjects of reflection and reason, is to aphorise, and the result an *aphorism*."

"In philosophy, equally as in poetry, it is the highest and most useful prerogative of genius to produce the strongest impressions of novelty, while it rescues admitted truths from the neglect caused by the very circumstance of their universal admission. Extremes meet. Truths, of all others the most awful and interesting, are too often considered as so true that they lose all the power of truth, and lie bedridden in the dormitory of the soul, side by side with the most despised and exploded errors" (*ib.*, p. 1).

APODEICTIC (*ἀποδείκνυμι*, to show), self-evident, "demonstrative" without demonstration, beyond contradiction, standing in contrast with DIALECTIC.

This term was borrowed by Kant from Aristotle (*Analyt. Prior.*, lib. i. cap. 1), who, restricting the work of demonstration, made a distinction between propositions which admitted of contradiction or dialectic discussion, and such as were the basis or result of demonstration. Kant introduced an analogous distinction between our judgments, giving the name of apodeictic to such as were above all contradiction, or were *necessary* and *universal*, the *a priori* conditions of experience, as opposed to those which are *contingent* on the *result* of experience. Adamson, art. "Logic," *Encyclopædia Britannica*, 9th ed., states the distinction thus:—"The one rests on principles essential, necessary; seen to be true, while the other proved from data which are merely received as credible, and as containing probable, received opinions on a subject about which there may be difference of view; and, it may be added, that in the one we reach conclusions which are essential, in which the predicate is necessarily and universally true of the subject, while in the other the conclusion remains, like the data, credible merely, and is, at best, only one of the probable

answers to a question." Thus, "*apodeictic* knowledge deals with the universal and necessary, that which is now and always, that which cannot be other than it is, that which is what it is simply through its own nature. It is the expression of the true universal in thought and things, τὸ καθόλου."

APOLOGUE (ἀπόλογος, *fabula*), "a novel story, contrived to teach some moral truth" (Johnson). A fable or allegory.

For admirable instances of the *apologue*, see that of Protagoras concerning the gift of Reverence and Justice, (Plato's *Protag.*, p. 320; Jowett, 1st ed., i. 129), and Coleridge's *Friend*, where the case of the seizure of the Danish fleet by the English is represented in this form (*The Friend*, sec. 1, essay xiv.).

APOLOGY (ἀπολογία) a defence, as Xenophon's "Apology of Socrates" in the *Memorabilia*, and Plato's *Apology*, professedly the defence offered by Socrates, when publicly charged with Atheism and corrupting the youth of Athens, and his parting words after sentence of death had been pronounced.

APOPHTHEGM (ἀποφθέγγομαι, to speak out plainly).—A short and pithy utterance, as that of Augustus, *Festina lente*; or that of Demosthenes, Action is the first, second, and third essential of eloquence.

APPEARANCE.—That which seems to the senses in contrast with that which is verified. *Phenomenon*, in contrast with *fact*. German, *Erscheinung*. The distinction between appearance and reality is as old as philosophy. It is recognised, e.g., in the Eleatic and Heraclitic distinction of Being and Becoming, in Plato's distinction between the one and the many, the idea or essence and the sensible thing which is its shadow. This absolute opposition of Plato is overcome by Aristotle, who finds the essence in the appearance, the one in the many, the ideal in the sensible. The distinction reappears in modern philosophy, in Locke's contrast between *substance* or *substratum*, and the qualities which it underlies, and in Kant's *Thing-in-itself*, or *Noumenon* as opposed to the *Phenomenon*. Hegel identifies Essence and Appearance,

Noumenon and Phenomenon, finding in the latter only the manifestation or realisation of the former.

APPERCEPTION. (1) Internal Perception, or Consciousness; (2) Self-consciousness or Knowledge of Self involved in consciousness, as distinguished from knowledge of the modifications in consciousness. For this meaning, Kant uses *apperception*, as distinct from *bewusstseyn*.

Leibnitz uses apperception as equivalent to consciousness, or the knowledge of our own states. "The transient state which includes and represents the manifold in unity or in a simple substance," he would call *perception*, "which ought to be distinguished from Apperception or Consciousness,"—"de l'apperception ou de la conscience" (Leibnitz, *La Monadologie*, sec. 14; *Leibnitz Op. Phil.*, Göttingen, lxxviii. 706; Reid, *Intellectual Powers*, essay ii. ch. xxv.). On the French term *conscience*, see Stewart's *Philosophical Essay*, essay i., introd., notes, *Works*, v. 56.

"By *apperception*," the Leibnitzio-Wolffians meant "the act by which the mind is conscious immediately of the representative object, and through it, mediately of the remote object represented" (Sir W. Hamilton, *Reid's Works*, note D*, sec. i. p. 877). It is thus equivalent to consciousness.

Kant reserves the term apperception for consciousness of self, and thereafter distinguishes between empirical and transcendental apperception. "The consciousness of oneself, according to the determinations of our state, is, with all our internal perceptions, empirical only, and always transient. There can be no fixed or permanent self in that stream of internal phenomena. It is generally called the internal sense, or the *empirical apperception*" (*Critique of Pure Reason*, Transc. Anal., bk. i. ch. ii. secs. 2, 3; Max Müller's transl., ii. 94). With this is to be connected his transcendental apperception. "It must be possible that the *I think* should accompany all my representations; for otherwise something would be represented within me that could not be thought. . . . That representation which can be given before all thought, is called *intuition*, and all the manifold of intuition has therefore a necessary relation to the *I think* in the same subject in which that manifold of intui-

tion is formed. That representation, however, is an act of *spontaneity*, that is, it cannot be considered as belonging to sensibility. I call it *pure apperception*, in order to distinguish it from empirical apperception, or *original apperception*" (*Critique of Pure Reason*, Transc. Anal ; Werke, ed. Rosencranz, vol. ii. suppl. 14. So given in ed. Max Muller, i. 434. Meiklejohn gives it in text, p. 81).

Cousin also employs the term as equivalent to consciousness, saying that "the phenomenon of consciousness is given by an immediate apperception (*par une aperception immediate*) which attains it and knows it directly" (*History of Philosophy in the Eighteenth Century*, lect. xxiv.; *Cours de l'Hist. de la Phil.*, ii. 441, 1829; Wright's transl. ii. 314; Henry's transl., *Elements of Psychology*, p. 277). "An apperception of consciousness is knowledge or it is nothing" (*ib.*). "The special characteristic of all knowledge of consciousness is directness and immediateness" (*ib.*). "But it is not with the Self, as with the sensation, volition, or thought the understanding is provided with the principle,—that every phenomenon supposes a being . . . this is the principle by which Self or personality is revealed ; I say *revealed*, for Self does not fall under the immediate apperception of consciousness. . . . As soon as an apperception of consciousness is given, we cannot help judging that the subject of it, the Self, I, exists. . . . It is enough to have a phenomenon of consciousness, and then, on the instant, and without the second term, *Self*, being previously known, the understanding, by its own innate efficacy, by the principle which in such a case directs it, conceives, and in some sort divines, but divines infallibly this second term as the necessary subject of the first" (lect. xxiv.). Cousin holds that there is a spontaneous and a reflective exercise of Reason ; that the Idea of the Absolute is given in the spontaneous reason, and is interpreted by philosophy ; and that the spontaneous reason is impersonal, the absolute reason revealing itself (*Course of Philosophy*, lect. v., with appendix and preface to *Philosophical Fragments*).

APPETITE.—Physical craving, "accompanied with uneasy sensation" (Reid). Appetites are classified under Desires. "The word *appetitus*, from which that of appetite is derived, is

applied by the Romans and the Latinists to desires in general, whether they primarily relate to the body or not, and with obvious propriety ; for the primitive signification is the seeking after whatever may conduce to happiness. Thus Cicero observes, "*Motus animorum duplexes sunt, alteri, cogitationis; alteri, appetitus. Cogitatio in vero exquirendo maxime versatur; appetitus impellit ad agendum.*"

"Often means hunger, and sometimes figuratively any strong desire" (Beattie, *Moral Science*, pt. i. ch. 1.).

"Appetites, considered in themselves, are neither social principles of action, nor selfish. They cannot be called social, because they imply no concern for the good of others, nor can they justly be called selfish, though they be commonly referred to that class. An appetite draws us to a certain object, without regard to its being good for us or ill. There is no self-love implied in it, any more than benevolence. We see that, in many cases, appetite will lead a man to what he knows will be to his hurt. To call this, acting from self-love, is to pervert the meaning of words. It is evident that in any case of this kind, self-love is sacrificed to appetite" (Reid, *Active Powers*, essay iii. pt. ii. ch. i., Hamilton's ed., p. 553; Stewart, *Active Powers*, bk. i. ch. i., Hamilton's ed., vi. 127; Cogan, *On the Passions*, i. 15).

APPREHENSION (*apprehendo*, to lay hold of) -- Simple cognition,—knowledge of fact, simple or complex. "By simple apprehension, we mean the power which the mind possesses of forming concepts" (Morell, *Mental Philosophy*, p. 232).

Apprehension in Logic, is that act or condition of the mind in which it receives a notion of any object; and which is analogous to the perception of the senses, &c. (Whately, *Logic*, bk. ii. ch. i. sec. 1).

"*Apprehension* (Die Apprehension), is the Kantian word for perception, in the largest sense in which we employ that term. It is the genus which includes under it, as species, perception proper, and sensation proper" (Meiklejohn, *Criticism of Pure Reason*, note, p. 127).

Apprehend and Comprehend.—"We *apprehend* many truths which we do not *comprehend*. The great mysteries of

our faith, the doctrine, for instance, of the Holy Trinity—we lay hold upon it (*ad prehendo*), we hang upon it, our souls live by it; but we do not take it all in, we do not *comprehend* it; for it is a necessary attribute of God that He is incomprehensible; if He were not so He would not be God, or the being that comprehended him would be God also. But it also belongs to the idea of God that He may be ‘*apprehended*,’ though not ‘*comprehended*’ by His reasonable creatures; He has made them to know Him, though not to know Him all, to ‘*apprehend*’ though not to ‘*comprehend*’ ‘*Him*’” (Trench, *On Study of Words*, p. 110).

APPROBATION (Moral).—The affirmation of harmony with moral law, applied to an action or an agent. It includes a judgment that an action is *right*, and a feeling favourable to the agent. The judgment precedes the feeling. In some cases the feeling predominates; in others the judgment is more prominent. The term applies more properly to the moral agent, whether self or another. It is a judgment of commendation on account of well-doing (Fleming’s *Manual of Moral Philosophy*, p. 102; Reid, *Active Powers*, essay v. ch. vii.; Calderwood’s *Handbook of Moral Philosophy*, p. 28).

A PRIORI.—Reasoning from what is prior either as a condition of thought, or as a condition of existence—prior, logically or chronologically. (1) Reasoning from cause to effect (Aristotle); (2) from first truths, self-evident, and essential to intelligence; (3) from the forms of cognition which are independent of experience (Kant). According to Kant, *à priori* applies to forms of knowledge which are prior in logical order to experience.

“The term *à priori*, by the influence of Kant and his school, is now very generally employed to characterise those elements of knowledge which are not obtained *à posteriori*—are not evolved out of factitious generalisations; but which as native to, are potentially in, the mind antecedent to the act of experience, on occasion of which (as constituting its subjective condition) they are first actually elicited into consciousness. Previously to Kant the terms *à priori* and *à posteriori* were, in a sense which descended from Aristotle,

properly and usually employed—the former to denote a reasoning from cause to effect—the latter a reasoning from effect to cause. The term *à priori* came, however, in modern times, to be extended to any abstract reasoning from a given notion to the conditions which such a notion involved ; hence, for example, the title *à priori* bestowed on the ontological and cosmological arguments for the existence of the Deity. The latter of these, in fact, starts from experience—from the observed contingency of the world, in order to construct the supposed notion on which it founds. Clarke's cosmological demonstration called *à priori*, is therefore, so far, properly an argument *à posteriori*” (Sir W. Hamilton, *Reid's Works*, p. 762).

“There are two general ways of *reasoning*, termed arguments *à priori* and *à posteriori*, or according to what is usually styled the *synthetic* and *analytic* method, the one lays down some previous self-evident principles ; and, in the next place, descends to the several consequences that may be deduced from them ; the other begins with a view of the phenomena themselves, traces them to their original, and by developing the properties of these phenomena, arrives at the knowledge of the cause” (King, *Essay on Evil*, preface, p. 9).

“Of demonstrations there are two sorts ; demonstrations *à priori*, when we argue from the cause to the effect ; and *à posteriori*, when we argue from the effect to the cause. Thus when we argue from the ideas we have of immensity, eternity, necessary existence, and the like, that such perfections can reside but in *one* being, and thence conclude that there can be but one supreme God, who is the cause and author of all things, and that therefore it is contradictory to this to suppose that there can be two necessary independent principles, the one the cause of all the good, and the other the cause of all the evil that is in the world ; this is an argument *à priori*” (Dr John Clark, *Enquiry into Evil*, pp. 31, 32).

“By knowledge *à priori*,” says Kant (*Critique of Pure Reason*, introd., sec. 1), “we shall in the sequel understand, not such as is independent of this or that kind of experience, but such as is absolutely so of *all* experience. Opposed to

this is empirical knowledge, or that which is possible only *à posteriori*, that is, through experience. Knowledge *à priori* is either pure or impure. Pure knowledge *à priori* is that with which no empirical element is mixed up. For example, the proposition 'Every change has a cause,' is a proposition *à priori*, but impure, because change is a conception which can only be derived from experience."

"If there are any *truths* which the mind possesses, whether consciously or unconsciously, before and independent of experience, they may be called *à priori* truths, as belonging to it *prior* to all that it acquires from the world around. On the other hand, truths which are acquired by observation and experience are called *à posteriori* truths, because they come to the mind *after* it has become acquainted with external facts. How far *à priori* truths or ideas are possible is the great *campus philosophorum*, the great controverted question of mental philosophy" (Thomson, *Outline of Laws of Thought*, 2nd ed., p. 68; 3rd ed., p. 62).

"It must be noticed that the term *à priori* has undergone important changes of meaning. In Aristotle's philosophy, the general truth is 'naturally prior' (*πρότερον τῇ φύσει*) to the particular, and the cause to the effect; but since we know the particular before the universal, and the effect before we seek the cause, the particular and the effect are each prior in respect to us (*πρότερον πρὸς ἡμᾶς*)" (*Anal. Post.*, i. 2; *Top.*, vi. 4; *Metaph.* v. (Δ), xi. 1018, ed. Berol; Thomson's *Outlines of the Laws of Thought*, 3rd ed., p. 68).—*V. DEMONSTRATION.*

ARBOR PORPHYRIANA.—*V. PORPHYRY* (TREE OF).

ARCHÆUS, the name given by Paracelsus to the vital principle which is the source of the growth and continuation of living beings.—*V. ANIMA MUNDI.*

ARCHETYPE (*ἀρχή*, first or chief; and *τύπος*, form), a model or first form.—"There were other objects of the mind, universal, eternal, immutable, which they called intelligible ideas, all originally contained in one *archetypal* mind or understanding, and from thence participated by inferior minds or souls" (Cudworth, *Intell. Syst.*, p. 387).

"There is truth as well as poetry in the Platonic idea of

things being formed after original *archetypes*. But we hold that these *archetypes* are not uncreated, as Plato seems to suppose; we maintain that they have no necessary or independent existence, but that they are the product of Divine wisdom; and that we can discover a final cause for their prevalence, not, indeed, in the mere convenience and comfort of the animal, but in the aid furnished to those created intelligences who are expected to contemplate and admire their predetermined forms" (McClosh, *Meth. of Div. Gov.*, bk. ii. ch. i. sec. 4).

In the philosophy of Locke, the *archetypes* of our ideas are the things really existing out of us. "By real ideas, I mean such as have a foundation in nature; such as have a conformity with the real being and existence of things, or with their *archetypes*" (*Essay on Human Understanding*, bk. ii. ch. xxx.).

ARCHITECTONIC.—"By the term *Architectonic*, I mean the art of constructing a system . . . the doctrine of the scientific in cognition" (Kant's *Critique of Pure Reason*, Meiklejohn, 503; Max Müller, ii. 714). Kant proposes "to sketch the plan of the *Architectonic* of all cognition given by *pure reason*," adding that, by Reason he understands "the whole higher faculty of cognition, the *rational* placed in contradistinction to the *empirical*."

ARGUMENT (*arguo*, from ἀπρός, clear, manifest), to show, reason, or prove; procedure towards truth by inference (Whately, *Logic*, bk. ii. ch. iii. sec. 2).

The term *argument* in ordinary discourse has several meanings:—(1) It is used for the premises in contradiction to the conclusion, e.g., "the conclusion which this *argument* is intended to establish is," &c.; (2) it denotes what is a *course* or *series* of *arguments*, as when it is applied to an entire dissertation; (3) sometimes a *disputation* or *two trains* of *argument* opposed to each other; (4) lastly, the *various forms* of *stating* an *argument* are sometimes spoken of as different kinds of *argument*, as if the same *argument* were not capable of being stated in various ways (Whately, *Logic*, app. i.).

"In technical propriety *argument* cannot be used for

argumentation, as Dr Whately thinks, but exclusively for its middle term. In this meaning, the word (though not with uniform consistency) was employed by Cicero, Quintilian, Boethius, &c.; it was thus subsequently used by the Latin Aristotelians, from whom it passed even to the Ramists; and this is the meaning which the expression always first, and most naturally, suggests to a logician" (Sir W. Hamilton, *Discussions*, p. 147).

In this sense the *discovery* of *arguments* means the discovery of middle terms.

Argument (The Indirect).—It is opposed to the Ostensive or Direct. Of *Indirect arguments* several kinds are enumerated by logicians:—

Argumentum ad hominem, an appeal to the principles or consistency of an opponent.

Argumentum ex concessio, a proof derived from some truth already admitted.

Argumentum a fortiori (*q.v.*).

Argumentum ad iudicium, an appeal to the common sense of mankind.

Argumentum ad verecundiam, an appeal to our reverence for some respected authority.

Argumentum ad populum, an appeal to the passions and prejudices of the multitude.

Argumentum ad ignorantiam, an argument founded on the ignorance of an adversary.

Argumentum per impossibile, or **Reductio ad absurdum**, is the proof of a conclusion derived from the absurdity of a contradictory supposition.

These arguments are called *Indirect*, because the conclusion that is established is not the absolute and general one in question, but some other relative and particular conclusion, which the person is bound to admit in order to maintain his consistency. The *Reductio ad absurdum* is the form of argument which more particularly comes under this denomination. This mode of reasoning is much employed in geometry, where, instead of demonstrating what is asserted, everything that contradicts the assertion is shown to be absurd. For, if everything which

contradicts a proposition is absurd, or unthinkable, the proposition itself must be accepted as true.

ARGUMENTATION is opposed to intuition and consciousness. It is used by Price as synonymous with deduction (*Review*, ch. v).

"Argumentationis nomine tota disputatio ipsa comprehenditur, constans ex argumento et argumenti confutatione" (Cicero).

ART (Latin *ars*, from Greek *ἀρτή*, strength or skill; or from *ἄρω* to fit, join, or make agree).—(1) Skill in practice; (2) more generally, skill in giving embodiment or representation to the ideal. "Art has in general preceded science" (M'Cosh, *Meth. of Dis. Gov.*, p. 151).

Art is defined by Lord Bacon to be "a proper disposal of the things of nature by human thought and experience, so as to make them answer the designs and uses of mankind." It may be defined more concisely as the adjustment of *means* to accomplish a desired *end* (Stewart, *Works*, ii. 36, Hamilton's edition).

"The object of *science* is knowledge; the objects of *art* are works. In *art*, truth is a means to an end; in *science* it is the only end. Hence the practical arts are not to be classed among the sciences" (Whewell, *Phil. of Induct. Sci.*, aph. 25).

"The distinction between *science* and *art* is, that a *science* is a body of principles and deductions, to explain the nature of some object matter. An *art* is a body of precepts, with practical skill, for the completion of some work. A *science* teaches us to know, an *art* to do" (Thomson, *Outline of Laws of Thought*, p. 16, 2nd ed.; p. 13, 3rd ed.).

"*Science* gives principles, *art* gives rules. *Science* is fixed, and its object is intellectual; *art* is contingent, and its object sensible" (Harris, *Dialogue on Art*).

The difference between *art* and *science* is regarded as merely verbal by Sir William Hamilton in *Edin. Rev.*, No. 115; for contrary view see Preface of St Hilaire's translation of the *Organon*, p. 12; Whewell, *Phil. of Induct. Sci.*, pt. ii. bk. ii. ch. viii.

"The principles which *art* involves, *science* evolves. The truths on which *art* depends lurk in the artist's mind unde-

veloped, guiding his hand, stimulating his invention, balancing his judgment, but not appearing in the form of enunciated propositions. *Art* in its earlier stages is anterior to science—it may afterwards borrow aid from it" (Whewell, *Phil. of Induct. Sci.*, ii. 111, 112, new ed.).

ASCETICISM (*ἀσκησις*, exercise).—Practice of self-denial beyond the requirements of moral law, avowedly for the attainment of a higher moral life. The exercise of severe virtue among the Pythagoreans and Stoics was so called. "This name may be applied to every system which teaches man not to govern his wants by subordinating them to reason and the law of duty, but to stifle them entirely, or at least to resist them as much as he can; and these are not only the wants of the body, but still more those of the heart, the imagination, and the mind. . . . *Asceticism* may be distinguished as *religious*, which is founded on the doctrine of expiation, and seeks to appease the divine wrath by voluntary sufferings, and *philosophical*, which aims at accomplishing the destiny of the soul, developing its faculties, and freeing it from the servitude of sense" (*Dict. des Sci. Phil.*).

ASSENT (*ad sentio*).—(1) To think the same—to be of the same mind; (2) intellectual acceptance of a proposition. The term is generally used as implying a measure of faith or belief in the absence of intuition or reasoned proof.

"*Assent* is that act of the mind by which we accept as true a proposition, a perception, or an idea. It is a necessary part of judgment; for if you take away from judgment affirmation or denial, nothing remains but a simple conception, without logical value, or a proposition which must be examined before it can be admitted" (*Dict. des. Sci. Phil.*).—V. BELIEF, CONSENT.

ASSERTION (*ad sero*, to join to, to declare), in Logic, affirmation (Whately, *Logic*, bk. ii. ch. ii. sec. 1).—V. AFFIRMATION.

ASSERTORY, Affirmative.—*Judgments* have been distinguished into *problematic*, *assertory*, and *apodeictic*. "The *problematic* is that which expresses logical possibility only, that is, a free choice of admitting such a proposition, and a purely

optional admission of it into the understanding. The *assertory*, logical reality or truth. . . . The *apodeictic* represents the assertory as determined by the very laws of the understanding, and therefore as asserting *à priori*, thus expressing logical necessity" (Kant's *Critique of Pure Reason*, Transc. Anal., bk. 1. ch. i. sec. 3.; Max Muller's transl., II. 67).

ASSOCIATION (*associa*, to accompany).—Applied to laws of mental combination which facilitate recollection—commonly called "Association of Ideas." "The law of *association* is this—That empirical ideas, which often follow each other, create a habit in the mind, whenever the one is produced, for the other always to follow" (Kant, *Anthropology*, p. 182). The philosophy which traces all knowledge to experience regards association as also a means of developing higher powers.

The laws of association as commonly stated are these:—(1) Similarity; (2) Contiguity; (3) Repetition;—mental phenomena, similar, or often occurring together, recall each other. The bond becomes stronger as the relation in consciousness recurs. Dispute has been raised over the question whether we may hold such associations as indissoluble or inseparable (J. S. Mill's *Examination of Hamilton*, 3rd ed., p. 220).

"Ideas, that in themselves are not at all alien, come to be so united in some men's minds that it is very hard to separate them; they always keep company, and the one no sooner at any time comes into the understanding but its *associate* appears with it" (Locke's *Essay*, bk. ii. ch. xxxii. sec. 5).

Locke, *Essay*, bk. ii. ch. xxiii.; Hume, *Essays*, essay iii.; Hartley, *Observations on Man*; Reid, *Intellectual Powers*, essay iv.; Stewart, *Elements*, vol. ii. ch. v.; Brown, *Lectures*, lect. xxxiii.; Hamilton's *Reid*, notes D** and D***, p. 889; Hamilton's *Lectures on Metaphysics*, ii. 223; J. S. Mill's *Examination of Hamilton's Philosophy*, 3rd ed., p. 219 (especially on "Insolubility," the "Revivability," and the "Associability" of Feelings); Herbert Spencer, *Principles of Psychology*, i. 228; Bain's *Senses and Intellect*, 2nd ed., p. 327. On the bearing of association on evolution of mind, or development of knowledge,—J. S. Mill's *Examination of Hamilton*, ch. xi.; Herbert Spencer's

First Principles, "The Knowable." Criticism of the theory,—Calderwood's *Handbook of Moral Philosophy*, pp. 98–122.

ASSUMPTION (*assumo*, to take for granted).—(1) The accepted premiss from which an inquiry or argument takes its start; (2) with emphasis on the prefix, it is used to designate the subordinate premiss, connected with the more general.

Of enunciations or premises, that which is taken universally is called the *proposition*, that which is less universal and comes into the mind secondarily is called the *assumption* (Trendelenburg, *Notæ in Arist.*).

The *assumption* is thus the minor proposition in a syllogism, the major being named in contrast the *presumption*. The terms more commonly in use are *sumption*, and *subsumption*.

ATHEISM (α priv., and $\theta\epsilon\acute{o}s$, God).—The doctrine that there is no God. The term is properly applied to every theory of the universe which does not postulate an Intelligent First Cause. Every Materialistic Theory is Atheistic.

Under this title falls to be included the theory which seeks to account for existence by reference to matter and motion, first attributed to Diagoras of Melos (Ueberweg's *History*, i. 80; Schwegeler, p. 26), and the early elemental theories of Thales, Anaximenes, and Heraclitus.

Atheism has been distinguished from *Anti-theism*; and the former has been supposed to imply merely the non-recognition of God, while the latter asserts His non-existence. This distinction is founded on the difference between *unbelief* and *disbelief* (Chalmers, *Nat. Theol.*, i. 58), and its validity is admitted in so far as it discriminates merely between sceptical and dogmatic *atheism* (Buchanan, *Faith in God*, i. 396).

"The verdict of the *atheist* on the doctrine of a God, is only that it is not proven. It is not that it is disproven. He is but an *atheist*. He is not an *anti-theist*" (Chalmers, *ut supra*).

Plato, treating of Atheism as a disorder of the soul ($\tau\acute{\alpha}\tau\eta\nu\ \tau\eta\nu\ \nu\acute{o}\sigma\sigma\omicron\nu$), says:—"There have always been persons, more or less numerous, who have had the same disorder. I have known many of them, and can tell you this, that no one who had

taken up in youth this opinion, that the Gods do not exist, ever continued in the same until he was old" (*Laws*, bk. x. p. 888; Jowett's *Plato*, 1st ed., iv. 398).

"To believe nothing of a designing principle or mind, nor any cause, measure, or rule of things but chance, so that in nature neither the interest of the *whole*, nor of any *particulars*, can be said to be in the least designed, pursued, or aimed at, is to be a perfect *atheist*" (Shaftesbury, *Inquiry Concerning Virtue*, bk. i. pt. 1. sec. 2).

Hi soli sunt athei qui mundum rectoris sapientis consilio negant in initio constitutum utque in omni tempore administrari (Hutcheson, *Metaphysics*, pt. iii. cap. 1.)

Atheism is erroneously applied to Spinoza's system, which is at the opposite extreme from Atheism.—*V. ACOSMISM.* Equally unwarrantable is it to describe the theory of Evolution as Atheistic. As a theory, it leaves untouched the question of the origin of existence. Mr Darwin says:—"There is grandeur in this view of life, with its several powers, having been originally breathed by the Creator into a few forms, or into one; and that whilst the planet has gone cycling on according to the fixed law of gravity, from so simple a beginning, endless forms, most beautiful and most wonderful, have been and are being evolved (*Origin of Species*, p. 577).

By theological writers of the 16th century, the name of Atheism is applied to the unbelief of such persons as Pomponatius; and in the 17th it is used by Bacon (*Essay on Atheism*), Milton (*Paradise Lost*, bk. vi.), and Bunyan (*Pilgrim*) to imply general unbelief. Toward the end of the same century it is found, *e.g.*, in Kortholt (*De Tribus Impiutoribus*, 1680), to include Deism such as that of Hobbes, as well as a Pantheistic scheme like Spinoza's. Tillotson (*Sermon on Atheism*) and Bentley (*Boyle Lectures*) use the word more exactly; the introduction of the term *Deism* induced in the writers of the 18th century a more limited and exact use of the former term.

ATOMISM (α , priv.; and τέμνω, to cut,—that which cannot be cut or divided is an atom), the theory of the universe which traces its origin to primitive indivisible particles of matter, differing in form and in their relations to each other. The theory

is that which accounts for existence by the action, interaction, and combinations of atoms. Leucippus and Democritus were the founders of the School of Atomists (Diog. Laert., bk. ix. pp. 30–49). The conception, however, belongs to eastern thought, as in the Nya'ya Philosophy, according to Kanada's aphorism, No. 7, "ultimate difference is that which resides in eternal substances," as in the case of two atoms (*The Bhaisha' Parichchhada* and its commentary, by V. P. Bhatta, with an English version, Calcutta, 1851).

Under the theory, atoms differing in size and form, endowed with power of motion, explain attraction and repulsion, and account for the homogeneous and the different. Along with an atomic theory, there has quite commonly been held the existence of an intelligent First Cause,—and incorporeal Deity. The natural tendency with such a theory, however, is towards Materialism.

Ueberweg's *History*, i., Leucippus and Democritus, p. 67, Epicurus, p. 205, Schwegler's *History*, pp. 25, 26; Lucretius, p. 138; Cudworth's *Intellectual System*, bk. i. ch. i. sec. 18, Stewart's *Active Powers*, vol. ii. note A, *Works*, vii. 369, "Various Hypotheses in explanation of the activity apparent in the universe."

ATTENTION (*attendo*, to stretch towards), concentrated observation, the voluntary directing of the energy of the mind towards an object. "The phrase direction of consciousness might often be advantageously substituted for it" (Holand's *Mental Physiology*, p. 14).

It implies Will, as distinct from Intelligence and Sensibility, being the voluntary direction of intelligence.

According to Dr Reid, "*Attention* is a voluntary act; it requires an active exertion to begin and to continue it; and it may be continued as long as we will; but consciousness is involuntary, and of no continuance, changing with every thought" (*Intellectual Powers*, essay i. ch. v.). According to Reid, *Attention* to external things is *observation*. *Attention* to the subjects of our own consciousness is *reflection*. *Attention* and *abstraction* are the same process, viewed in different relations (Hamilton's *Metaphysics*, lect. xiii. i. 236).

ATTRIBUTE (*attribuo*, to ascribe), anything that can be predicated of another.

"*Attributes* are usually distributed under the three heads of quality, quantity, and relation" (Mill, *Logic*, 2nd ed., i. 83).

In the Schools, the definition, the genus, the proprium, and the accident, were called dialectic *attributes*; because, according to Aristotle (*Topic*, lib. i. cap. vi.), these were the four points of view in which any subject of philosophical discussion should be viewed.

"By this word *attribute*," said Descartes (in his letter to Regius), "is meant something which is immovable and inseparable from the essence of its subject, as that which constitutes it, and which is thus opposed to *mode*." Thus unity, identity, and activity are *attributes* of the soul; for I cannot deny them, without at the same time denying the existence of the soul itself. Sensibility, liberty, and intelligence are but *faculties*. In God there is nothing but *attributes*, because in God everything is absolute, involved in the substance and unity of the necessary being. *In Deo non proprie modos aut qualitates sed attributa tantum dicimus esse* (Descartes, *Prin. Phil.*, i. n. 57).

Spinoza defines *attribute* as "that which the intellect perceives of substance as constituting its essence;" *mode* as "the modifications of substance, or that which exists in, and is perceived through, something other than itself" (*Ethics*, pt. i. defin. 4 and 5).

AUTHENTIC (*ἀσθεντικός*), trustworthy, reliable,—distinguished, in the Logic of Evidence, from *genuine*. "A *genuine* book is that which was written by the person whose name it bears as the author of it. An *authentic* book is that which relates matters of fact as they really happened" (Bp. Watson, *Apology for the Bible*, p. 33).

See Sir G. C. Lewis *On Authority in Methods of Opinion*.

AUTHORITY.—(1) The power allowed to common opinion; (2) the weight of testimony coming from those who are experts or specialists; (3) ethical, the power to command under sanction of moral law; (4) civil, the power of constitutional rulers. "The principle of adopting the belief of others,

on a matter of opinion, without reference to the particular grounds on which the belief may rest" (Sir G. C. Lewis, *On Authority in Matters of Opinion*, p. 6).

"This word is sometimes employed in its primary sense, when we refer to any one's example, testimony, or judgment; as when, *e.g.*, we speak of correcting a reading in some book on the *authority* of an ancient MS., or giving a statement of some fact on the *authority* of such and such historians, &c. In this sense the word answers pretty nearly to the Latin *auctoritas*. It is a claim to *deference*. Sometimes, again, it is employed as equivalent to *potestas*, power, as when we speak of the *authority* of a magistrate. This is a claim to *obedience*" (Whately, *Logic*, app. i.).

Una in re consentio omnium gentium lex naturæ putanda est (Cicero, i. Tusc.).

Multum dare solemus præsumptioni omnium hominum: Apud nos veritatis argumentum est, aliquid omnibus videri (Seneca, epist. cxvii.).

AUTOOCRASY (αὐτός, self; and κρατέω, to rule).—Undeived power. Absolute power within the being itself. "The Divine will is absolute, it is its own reason, it is both the producer and the ground of all its acts. It moves not by the external impulse or inclination of objects, but determines itself by an absolute *autocracy*" (South, vol. vii. ser. x.).

AUTOMATON (αὐτόματον, that which moves of itself).—A self-acting machine. The term automatic is applied—(1) to any self-acting mechanism; (2) to the self-acting power of the muscular and nervous systems, by which movement is effected without intelligent determination and direction; (3) to processes in nature illustrating spontaneous action of energy. "In the *automaton*, for the comparatively few motions of which it is capable, we trace the mechanism throughout" (Paley, *Natural Theology*, ch. iii.).

"Movements influenced simply by sensation, and not at all by the will, are *automatic*, such as winking" (Morell, *Psychology*, p. 99).

Aristotle employed αὐτόματον as indicative of the accidental in nature, as illustrated by results not manifestly according to

the order of recognised law, including under this ἡ τύχη, chance (*Physics*, ii. 4-6).

AUTONOMY (αὐτὸς νόμος, itself a law).—Autonomy of the will is Kant's phrase for the doctrine that the human will is a law unto itself, or carries its guiding principle within itself. "Autonomy of Will is that quality of Will by which a Will (independently of an object willed) is a law to itself" (*Metaphysics of Ethics*, Semple, 3rd ed., p. 55; Kant's *Theory of Ethics*, Abbot, 3rd ed., p. 59).

Bearing on this, Kant's leading positions are these:—"Reason is given to man as the governor of his Will, by its sway to constitute it altogether good" (Semple, 5); the notion Duty comprehends under it "that of a good Will, considered, however, as affected by certain inward hindrances" (7); Duty is the necessity of an act out of reverence felt for law" (11); the formula of "ideal legality" is this—"Act from a maxim at all times fit for law universal" (13); "ethical ideas have their origin and seat altogether *à priori* in the Reason" (23); an intelligent being "alone has the prerogative of acting according to the representation of laws, *i.e.*, according to principle, or has a Will" (25); "freedom of will is autonomy, *i.e.*, that property of will by which it determines its own causality, and gives itself its own law" (58); "reason must have a causality of its own, adapted for determining the sensory according to its own principles" (74).

AVERAGES.—Calculable proportions in view of all the variety of conditions concerned in occurrences. This is described in Logic as the doctrine of Probabilities (Quetelet, *On Probabilities*, transl. Downes; De Morgan, *Cambridge Phil. Transactions*).

"Chance may be described as the amount of belief with which we expect one or other out of two or more uncertain events" (Thomson's *Laws of Thought*, 3rd ed., p. 331).

As applicable to the occurrence of crime, as of accident, Lotze says:—"As soon as we know that the general economy of the universe apparently requires yearly a certain average of crime just as much as a certain average of temperature, we can hardly help seeing even in intellectual life the unbroken

sequence of a blind mechanism" (*Microcosmus*, translation, i. 25).

AXIOM (ἀξίωμα, from ἀξιόω, to think worthy), (1) a position of worth or authority, (2) the basis of demonstration, (3) a self-evident proposition.

"Philosophers give the name of *axioms* only to self-evident truths that are necessary, and are not limited to time and place, but must be true at all times and in all places" (Reid, *Intellectual Powers*, essay ii. ch. xx.; Hamilton, *Reid's Works*, note A, sec. 5; Stewart, *Elements*, pt. ii. ch. i.).

Aristotle applied the term to all self-evident principles, which are the grounds of all science (*Anal. Post.*, lib. i. ch. ii. 13 and ch. iii. 5), things immediate, τὰ ἄμεσα, which do not admit of proof. According to him they were all subordinate to the supreme condition of all demonstration, the principle of identity and contradiction. The Stoics, under the name of *axioms*, included every kind of general proposition, whether of necessary or contingent truth. In this sense the term is employed by Bacon, who, not satisfied with submitting *axioms* to the test of experience, has distinguished several kinds of *axioms*, some more general than others (*Novum Organum*, lib. i. aphor. xiii., xvii., xix., &c.). The Cartesians, in applying the methods of geometry to philosophy have followed Aristotelian usage.

BEAUTY.—*Beauty* is *absolute*, *real*, and *ideal*. The *absolutely* beautiful belongs to Deity. The *really* beautiful is presented to us in the objects of nature and the actions of human life. The *ideally* beautiful is aimed at by art. Plato identified the *beautiful* with the *good*, τὸ καλὸν καὶ ἀγαθόν. But, although the ideas of the beautiful, the good, and the true are related to each other, they are distinct. There may be truth and propriety or proportion in *beauty*—and there is a *beauty* in what is good or right, and also in what is true. But still these ideas are distinct.

Dr Hutcheson (*Inquiry Concerning Beauty*, &c.) distinguishes *beauty* into "*absolute*," or that beauty which we perceive in objects without comparison to anything external, of which the object is supposed an imitation or picture; such as that *beauty*,

perceived from the works of nature; and "*comparative*" or relative *beauty*, which we perceive in objects, commonly considered as imitations or resemblances of something else. According to Hutcheson, the general foundation or occasion of the ideas of *beauty* is "*uniformity amidst variety*" (*Inquiry*, sec. 2).

"All the objects we call beautiful agree in two things, which seem to concur in our sense of *beauty*. (1) When they are perceived, or even imagined, they produce a certain agreeable emotion or feeling in the mind; and (2) this agreeable emotion is accompanied with an opinion or belief of their having some perfection or excellence belonging to them" (Reid, *Intellectual Powers*, essay viii ch. iv).

Berkeley, in his *Alciphron*, and Hume, in many parts of his works, made utility the foundation of *beauty*. But objects which are useful are not always beautiful, and objects which are beautiful are not always useful. That which is useful is useful for some end; and that which is beautiful is beautiful in itself, and independent of the pleasure which it gives or the end it may serve.

On the question whether mental or material objects first give us feelings of *beauty*, see Stewart, *Active Powers*, i. 279; Smith, *Theory of Mor. Sent.*, pt. iv. ch. 1.; Alison, *Essay on Taste*, Price, in his *Review of Principal Questions in Morals*, sec. 2; art "Beauty" in the *Ency. Brit.*, 9th ed., by Lord Jeffrey; Kames, *Elements of Criticism*, vol. i. ch. iii.; Burke, *On the Sublime and Beautiful*.—V. *ÆSTHETICS*.

BEING (τὸ ὄντως ὄν, the existing, German, *Seyn*).—(1) Existence; (2) in the antithesis of Thought and Being, that which is, in contrast to that which is thought, as a form of existence; (3) within thought itself, the first and most general of the categories; (4) being itself, that which involves the necessity of being, is The Absolute.

The whole range of Philosophy, from the beginning of its history, has been connected with Being and Becoming—the abiding and the fleeting; the system of Heraclitus, with its unity of being and not being, maintaining that all is in perpetual flux; the Eleatics, with their formula, only being is, and becoming is not at all. Thus the mystery of Being con-

tinues to occupy philosophic thought, until we find Hegel making a start with the discussion of Being and not Being
V. ONTOLOGY.

BELIEF (Fiducia, πίστις, Glaube).—(1) The recognition of the reality of an object which is neither present in consciousness, nor discovered by the senses, (2) the mind's assent to the truth of a proposition.

"Holding for true, or the subjective validity of a judgment in relation to conviction (which is at the same time objectively valid), has the three following degrees:—Opinion, Belief, and Knowledge. Opinion is a consciously insufficient judgment subjectively as well as objectively. *Belief* is subjectively sufficient, but is recognised as being objectively insufficient. Knowledge is both subjectively and objectively sufficient (Kant's *Critique of Pure Reason*, Doctrine of Method, Meißner, p. 498; Max Müller, ii. 705).

"*Belief*, assent, conviction, are words which I do not think admit of logical definition, because the operation of mind signified by them is perfectly simple, and of its own kind. . . . *Belief* is always expressed in language by a proposition wherein something is affirmed or denied. *Belief* admits of all degrees from the slightest suspicion to the fullest assurances. There are many operations of mind of which it is an essential ingredient, as consciousness, perception, remembrance. We give the name of evidence to whatever is a ground of *belief* (Reid *Intellectual Powers*, essay ii. ch. xx.; *Inquiry*, xx. sec. 5).

"St Austin accurately says:—'We *know* what rests upon reason; we *believe* what rests upon authority.' But reason itself must rest at last upon authority; for the original data of reason do not rest upon reason, but are necessarily accepted by reason on the authority of what is beyond itself. These data are, therefore, in rigid propriety, *beliefs* or *trusts*. Thus it is, that in the last resort, we must, perforce, philosophically admit, that *belief* is the primary condition of reason, and not reason the ultimate ground of *belief*. We are compelled to surrender the proud *Intellige ut credas* of Abelard, to content ourselves with the humble *Crede ut intelligas* of Anselm' (Hamilton, *Reid's Works*, note A, sec. 5, p. 760).

Belief, in contradistinction to knowledge, always ought to indicate some case in which the objective evidence is incomplete, and of which the opposite does *not* imply either impossibility or absurdity. We cannot, accordingly, in propriety of language, say:—"I *believe* I have a pen in my hand and a sheet of paper before me," or I *believe* that two and two make four, or I *believe* in my own existence or the law of gravitation. "These are things which we *know*. . . . We have used the adjective *natural* in connection with the word belief, to indicate that state of rational intelligence which comes next of all to knowledge; which forms the transition point between positive knowledge and personal conviction" (Morell, *Mental Philosophy*, p. 325).

Hamilton says (Letter to Calderwood in Appendix to *Metaphysics*, II. 530):—"The sphere of our belief is much more extensive than the sphere of our knowledge, and therefore when I deny that the Infinite can by us be *known*, I am far from denying that by us it is, must, and ought to be believed. In the order of nature, belief always precedes knowledge" (Sir W. Hamilton, *Metaphysics*, I. 44. The meaning is that knowledge has in each particular instance faith as its basis, and all human knowledge finds its resting-place on necessary belief (Calderwood, *Phil. of Infin.*, 2nd ed., p. 29).

"The word *believing* has been variously and loosely employed. It is frequently used to denote states of consciousness which have already their separate and appropriate appellations. Thus it is sometimes said —'I believe in my own existence and the existence of an external world, I believe in the facts of nature, the axioms of geometry, the affections of my own mind,' as well as 'I believe in the testimony of witnesses, or in the evidence of historical documents.'"

"Setting aside this loose application of the term, I propose to confine it, *first*, to the effect on the mind of the premises in what is termed probable reasoning, or what I have named contingent reasoning—in a word, the premises of all reasoning, but that which is demonstrative; and, *secondly*, to the state of *holding true* when that state, far from being the effect of any premises discerned by the mind, is dissociated

from all evidence" (Bailey, *Letters on Philosophy of Human Mind*, 8vo, 1851, p. 75; *Essays on Formation of Opinions*, 8vo, 1831).

BENEVOLENCE (*benevolentia*, well-wishing), love to others; the motive prompting us to seek the good of others for its own sake.

Butler says (*On Human Nature*, Sermon i.) that "there are as real and the same kind of indications in human nature, that we were made for society and to do good to our fellow-creatures, as that we were intended to take care of our own life, and health, and private good." Those principles in our nature by which we are prompted to seek our own good are comprehended under the name of *Self-love*; those which lead us to seek the good of others are comprehended under the name of *Benevolence*. The Greek term was *φιλανθρωπία*, in the New Testament *ἀγάπη*, and among the Romans *humanitas*. Under these terms are comprehended all feelings and affections which lead us to increase the happiness and alleviate the sufferings of others.

According to some philosophers, our own good is the ultimate and only proper end of human actions, and when we do good to others it is done with a view to our own good. This is named The Selfish Philosophy, which in modern times has been maintained by Hobbes, Mandeville, Rochefoucault, and others. The opposite view, which is stated above in the words of Butler, has been strenuously defended by Cumberland, Hutcheson, Adam Smith, and Reid, and generally by moralists of the Intuitional School.

The Greatest Happiness theory, resting on the principle that "happiness is the only thing desirable," has passed away from the Egoistic form to the Altruistic, making its maxim the expression of Benevolence—"The Greatest Happiness of the greatest number." The theory either assumes that this maxim *ought* to supply the rule of life, or makes the practical power of the maxim depend on the consideration that, in seeking the happiness of others, we secure our own.

"Love is a matter of feeling, not of will or volition, and I cannot love because I will to do so, still less because I ought

(I cannot be necessitated to love); hence there is no such thing as a duty to love. *Benevolence*, however (*amor benevolentiae*), as a mode of action, may be subject to a law of duty" (Kant's *Ethics*, Abbot, p. 312).

BIOLOGY (*βίος λόγος*).—The science of life—a general designation which includes under it all scientific investigation as to any form of life, and as to the relations of the different orders of animate existence. The term biological thus covers the whole range of Natural History and Physiology, including the entire sweep of inquiry concerned with the problem of Evolution.

Whewell's *History of Scientific Ideas*, Huxley's *Elementary Biology*; Parker's *Zootomy*. Departments of the subject.—Asa Gray's *Structural Botany*, Darwin's *Insectivorous Plants*, Huxley's *Anatomy of Invertebrate Animals*, Foster's *Embryology*; Carpenter's *Human Physiology*; Rutherford's *Physiology*.

BODY.—(1) Material existence, whether organised or unorganised; (2) organised material being, in contrast with unorganised matter. Body is commonly the animated structure constituted by the correlation of muscular and nerve systems, in its higher forms, built upon the substratum of skeleton.

1. Spinoza uses the word in the most extended signification. "By *Body* we understand a certain measure or quantity, having length, breadth, and thickness, and bounded by a definite outline" (*Ethics*, p. i. prop. xv., Scholium). With this must be taken the fact that, according to Spinoza, God is *res extensa*.

Locke says:—"The primary ideas we have peculiar to *body*, as contradistinguished to *spirit*, are the cohesion of solid and consequently separable parts, and a power of communicating motion by impulse (*Essay*, bk. ii. ch. xxiii.).

"A *Body*, according to the received doctrine of modern metaphysicians, may be defined the external cause to which we ascribe our sensations. . . . The sensations are all of which I am directly conscious; but I consider them as produced by something, not only existing independently of my will, but external to my bodily organs and to my mind. This external

something I call a Body" (J. S. Mill, *Logic*, bk. i. ch. iii. sec. 7).

2. The more restricted meaning is that involved in the whole range of discussion concerned with the relations of "Mind and Body" (Carpenter, *Mental Physiology*; Bain, *Mind and Body*; Maudsley, *Body and Mind and Physiology of Mind*, Calderwood, *Relations of Mind and Brain*).

BONUM (*ἀγαθός*, Good).—(1) The agreeable or desirable in the widest sense, all that pleasurably affects sensitive organism; (2) in an ethical sense, the right, as in contrast with the wrong, in which case the adjective applies to actions required by moral law. The ancient ethical philosophy was largely moulded in forms suggested by "The Good," as desirable, or the end towards which action is directed; (3) "The Good,"—the Absolute Good,—or perfect Being,—God,—The Platonic use. For the German use of the word, specially the distinction between *das Gute* and *das Wohl*, see Kant's *Ethics*, Abbot, p. 150.

Bonum Summum, the chief good,—The phrase employed by ancient ethical philosophers to denote that in the pursuit and attainment of which the progress, perfection, and happiness of human beings consist.

Aristotle, in his *Ethics*, discusses the whole subject from the standpoint of the chief good, working towards an understanding of happiness, which results in its interpretation as the activity of a perfect human life. The Aristotelic treatment of ethics thus affords illustration of the form and order of reasoning in favour in ancient ethical systems. For illustration of the same tendency, as popular during the Roman period, see Cicero's *De Finibus*.

Modern Ethical Philosophy has passed over to a search for an objective standard of right, contemplating first the qualities of action, and only thereafter the true end or chief good. But the Happiness Theory keeps in closer relation with ancient form,—taking Happiness as the one thing desirable (Mill's *Utilitarianism*; Sidgwick's *Methods of Ethics*, where see specially, bk. iii. ch. xiv., "The Summum Bonum;" specially does this direction belong to the Ethics of Evolution, Spencer's

Data of Ethics, Leslie Stephen's *Science of Ethics*, Simcox, *Natural Law, an Essay in Ethics*). For a general view of this course of thought, see Sorley's *Ethics of Naturalism*. Martenson (*Christian Ethics*) discusses his subject from the standpoint of the highest good.

From the standpoint of the modern Rational School, it is admitted that Ethics may be regarded as a system of ends; and "the relation of end to duty may be cogitated in a twofold manner,—either beginning with the end to assign the maxim, or beginning with the maxim to determine the end. . . . Jurisprudence advances by the first method. . . . But Moral Philosophy strikes into an opposite march here we cannot commence with the ends he may design, and from them determine and formulate the maxims he has to take, *i.e.*, the duty he has to follow, for, in the latter event, the grounds of his maxim would be experiential, which we know beget no obligation, the idea of duty and its categorical imperative taking their rise in pure reason only" (Kant's *Metaphysics of Ethics*, Semple, 3rd ed., p. 197). See Kant's *Dialectic of Pure Reason*, defining the conception of the "*Summum Bonum*," Abbot's transl., Kant's *Ethical Theory, Practical Reason*, pt. 1. bk. ii. ch. i. and ii. p. 202.

"The conception of the *summum* itself contains an ambiguity, . . . the *summum* may mean either the supreme (*supremum*) or the perfect (*consummatum*). The former is that condition which is itself unconditioned, *i.e.*, is not subordinate to any other (*originarium*); the second is that which is not a part of a greater whole of the same kind (*perfectissimum*). . . . Virtue (as worthiness to be happy) is the *supreme condition* of all that can appear to us desirable, and consequently of all our personal happiness, and is therefore the supreme good. But it does not follow that it is the whole and perfect good as the object of the desires of rational finite beings; for this requires happiness also, and that not merely in the partial eyes of the person who makes himself an end, but even in the judgment of an impartial reason, which regards persons in general as ends in themselves" (Kant's *Ethics*, Abbot, 3rd ed., p. 206).

CAPACITY (*δύναμις*).—(1) Potentiality or capability.

Aristotle distinguishes potentiality or capacity from activity ; (2) Modern usage,—Receptive power. Taking the twofold view of human power, faculty is power of acting ; capacity is power of receiving impression. In popular language, capacity is often used as convertible with faculty,—a man of capacity standing for a man of ability.

“There are powers which are acquired by use, exercise, or study, which are called *habits*. There must be something in the constitution of the mind necessary to our being able to acquire *habits*, and this is commonly called *capacity*” (Reid, *Intellectual Powers*, essay i. ch. 1.).

Dr Reid did not recognise the distinction of power as active or passive. But *capacity* is a passive power, or natural receptivity. A faculty is a power which we are conscious we can direct towards an end. A *capacity* is rather a disposition or aptitude to receive certain modifications of our consciousness, in receiving which we are passive. But an original *capacity*, though at first passive, may be brought under the influence of will and attention, and when so exercised it corresponds to a mental power, and is no longer a pure receptivity. In sensation, we are in the first instance passive, but our *capacity* of receiving sensations may be employed in various ways under the direction of will and attention, or personal activity.

CARDINAL (*cardo*, a hinge).—The Cardinal Virtues of Ancient Philosophy are Wisdom, Fortitude, Temperance, and Justice (Plato's *Republic*, bk. iv. pp. 428–443 ; Jowett's *Plato*, 1st ed., ii. 255). These four virtues were so named because they were the hinges on which other virtues turned. Each one of them was a *fons et principium*, from which other virtues took their rise.

The division of the virtues is as old as moral philosophy. It is found in the teaching of Socrates as recorded by Xenophon, with this difference, that ἐντέλεια, or regard to the Deity, holds the place of prudence or wisdom (σοφία), which, united to virtue, forms true wisdom. Plato notices prudence, fortitude, and temperance, and in connection with or arising out of these, justice, which he considers not as the single virtue of giving all their due, but as the perfection of human

nature and of human society. The term justice had been employed in the same large sense by Pythagoras. According to the representations of Plato, prudence is the governing virtue, courage is the right kind of fear, on guard against the real dangers; temperance is the harmony of desires with intelligence, and justice is every man doing his proper work.

"The four *cardinal* virtues are rather the necessary and essential conditions of virtue, than each individually a virtue. For no one can by itself be manifested as a virtue, without the other three" (Thurot, *De l'Entendement*, tom. 1. p. 162).

"Justice, temperance, fortitude, and prudence, the old heads of the family of virtues, give us a division, which fails altogether; since the parts are not distinct, and the whole is not complete. The portions of morality so laid out, both overlap one another, or are undistinguishable, and also leave parts of the subject which do not appear in the distribution at all" (Whewell, *Systemat. Mor.*, lect. iv.).

Clodius, *De Virtutibus quas Cardinales Appellant*, 4to, Leips., 1815; Plethon, *De Quatuor Virtutibus Cardinalibus* 8vo, Basl., 1552.

CASUISTRY—(1) Disputation as to conflicting duties, that is, duties which seem to demand attention at the same time, yet cannot be fulfilled simultaneously. In the best sense, Casuistry is a system of the rational grounds for adjustment of such conflict. It does not imply dispute as to right and wrong; it presupposes the absence of such dispute; (2) in an evil sense, equivalent to sophistry, wilful concealment of truth under the subtleties of dialectic.

A department of ethics "the great object of which is to lay down rules or canons for directing us *how* to act wherever there is any room for doubt or hesitation" (Stewart, *Active Powers*, bk. iv. ch. v. sec. 4). The science of cases, or of those special varieties which are for ever changing the face of actions as contemplated by general rules (De Quincey, *On Casuistry*).

To *casuistry*, as ethical, belongs the decision of what are called cases of conscience—that is, cases in which from special circumstances the existence of obligation, or the degree of it, is involved in doubt.

CATEGOREMATIC (κατηγορέω, to predicate).—"A word is so called which may by itself be employed as a Term. Adverbs, Prepositions, &c., and also Nouns in any other case besides the Nominative, are *Synkategorematic*, i.e., can only form part of a Term" (Whately, *Logic*, bk. ii. ch. 1. sec. 3).

CATEGORICAL.—V. PROPOSITION.

CATEGORICAL IMPERATIVE (*Imperativ kategorisch*).—The direct command "Thou shalt," of the Moral Law.

"Such an Imperative as represents an action to be in itself necessary, and without regard to anywhats out of and beyond it" (Semple's translation of *The Metaphysic of Ethics*, new ed., p. 27). "An imperative, which, irrespective of every ulterior end or aim, commands categorically" (*ib.*, p. 27). "The representation of an objective principle, so far as it necessitates the will, is called a Commandment or Reason, and a *formula* expressing such is called an IMPERATIVE" (*ib.*, p. 25). This formula Kant presents in three forms.—(1) Act from a maxim at all times fit for law universal" (13), (2) "act from that maxim only when thou canst will law universal" (34); (3) "act as if the maxim of thy will were to become, by thy adopting it, a universal law of nature" (34). All three forms point to universality as characteristic of the Ethical Imperative, the *first* expresses the authoritative in the law; the *second* indicates that the Will must be its own legislator; and the *third*, that the imperative belongs to the fixed law of nature.

CATEGORY (κατηγορέω, to predicate), a class to which things or thoughts may be referred.

The *categories* are the highest classes under which objects of knowledge can be arranged in subordination and system. Philosophy, in seeking to know all things, finds it is impossible to know all things individually. Things and thoughts are, therefore, arranged in classes, according to common properties. When we know the definition of a class, we attain a formal knowledge of the individual objects of knowledge contained in that class. This attempt to render knowledge in some sense universal has been made in all ages of philosophy, and has given rise to the *categories* which have appeared in various forms. The earliest table of categories known is that of the

Pythagoreans, preserved by Aristotle in the First Book of his *Metaphysics*, ch. v. p. 3. It consists in a series of opposites or contraries, as *Odd, Even, &c.* Aristotle makes them ten in number, viz., οὐσία, substance; πόσον, quantity; ποιόν, quality; πρὸς τί, relation; ποῦ, place; πότε, time; κείσθαι, situation; ἔχειν, possession, or manner of holding; ποιεῖν, action; and πάσχειν, suffering.

The *categories* of Aristotle are both logical and metaphysical, and apply to things as well as to words. Regarded logically, they are reducible to two, *substance* and *attribute*. Regarded metaphysically, they are reducible to *being* and *accident*. The Stoics reduced them to four, viz., substance, quality, manner of being, and relation. The *categories* of Aristotle were generally acquiesced in till the time of Bacon, who recommended observation rather than classification, and regarded "the distribution of things into certain tribes, which we call *categories* or *predicaments*," as "but cautions against the confusion of definitions and divisions" (*Adv. of Learning*, bk. ii.).

The Cartesians arranged all things under three categories—*Substance, Attribute, and Mode*; Locke also under three—*Substance, Mode, and Relation*; Leibnitz under five—*Substance, Quantity, Quality, Action or Passion, and Relation*.

The *categories* of Kant are quantity, quality, relation, and modality. According to Kant, the manifold is arranged by us in accordance with the logical functions of our judgment. "The categories are nothing else than these functions of judgment, so far as the manifold in a given intuition is determined in relation to them" (Kant's *Critique of Pure Reason*, Meiklejohn, p. 88; *Werke*, Rosenkranz, ii., supplement 14, sec. 20, p. 740).

Kant professes to give a *complete* and *systematic* table of categories (deducing all from the unity of a single conception), in place of the *incomplete* and *haphazard* table of Aristotle.

According to Ueberweg and Hamilton, however, the difference between the Kantian and Aristotelian categories is more fundamental, the former being merely subjective or bearing reference to knowledge, the latter objective or bearing reference to things. No doubt the primary reference of Kant's categories

is to knowledge, of which they are the elementary constituents ; but the result of his critical analysis of knowledge being this, that objects owe their essential constitution to the knowing subject, it will follow that for him the categories of Knowledge are at the same time the categories of Reality.

Hegel signalised this result of the Kantian criticism, and proclaimed the identity of Thought and Being. He also sought to remedy the defects of Kant's table by adding higher categories to which Kant had not advanced, and by exhibiting the dialectic evolution of the categories of thought, as at the same time the evolution of actual existence.

Hamilton (Reid's *Works*, p. 687) gives the following simplification of the categories of Aristotle.—(1) Being by itself ; (2) Being by accident, the last including Quantity, Quality, and Relation (see also *Discussions*, pp. 26, 27, 2nd ed. ; *Logic*, i. 199).

Mill (*Logic*, bk i. ch. iii. sec 3) gives the following classification of all nameable things :—(1) Feelings or state of consciousness , (2) the minds which experience these feelings ; (3) the bodies or external objects which excite certain of these feelings, together with the power or properties whereby they excite them ; (4) the successions and co-existences, the likenesses and unlikenesses, between feelings or states of consciousness (see Ueberweg's *Logic*, Lindsay's transl., 114).

CAUSE, CAUSATION, CAUSALITY.—(1) (*a*) Operating power ; (*b*) more strictly, Power which, in operating, originates new forms of being in the exercise of intelligence. "In the strict philosophical sense, I take a cause to be that which has the relation to the effect, which I have to my voluntary and deliberate actions" (Reid, Hamilton's ed., Letter to Gregory, p. 77). (2) The manifestation of causal energy. (3) The law of mind which makes it necessary to recognise power adequate to account for every occurrence. This law of intelligence finds its application :—(*a*) In stimulating and guiding the search for particular causes, sufficient to account for particular events ; (*b*) in raising the problem of origin of finite being as applicable to existence however enduring ; (*c*) in disclosing the range of inquiry concerning causes, as it is inevitably a search for the First Cause—the Uncaused.

Aristotle, using the word Cause (*αἰτία*) in a wide sense to include all that is concerned in the production of any thing, enumerates four classes—formal, material, efficient, and final (*Metaph.*, i. 3). The *efficient* is that with which modern usage connects the name, as the source, ἀρχή. According to Aristotle, the *first* is the *form* proper to each thing,—τὸ τί ἦν εἶναι. This is the *quidditas* of the schoolmen, the *causa formalis*. The *second* is the matter and the subject,—ἡ ὕλη καὶ τὸ ὑποκείμενον, *causa materialis*. The *third* is the principle of movement which produced the thing,—ἀρχὴ τῆς κινήσεως, *causa efficiens*. The *fourth* is the end for the sake of which the thing is done—the reason and good of all things; for the end of all phenomena and of all movement is good,—τὸ οὐ ἕνεκα καὶ τὸ ἀγαθόν, *causa finalis*.

According to Derodon (*De Prædicam.*), the material *cause* is that *ex quo* anything is, or becomes. The formal *cause* is that *per quod*. The efficient *cause* is that *a quo*. The final *cause* is that *propter quod*.

Hamilton makes causality refer to the sum of existence, rather than to power. He says:—"When an object is presented phenomenally as commencing, we cannot but suppose that the complement of existence, which it now contains, has previously been" (*Metaph.*, lect. xxxix., ii. 400).—See DISCUSSIONS, App. I.

The nature and warrant of the *principle of causality* have been the chief subjects of discussion connected with causality.

Locke ascribes the origin of our idea of cause to an experience of the sensible changes which one body produces on another, as fire upon wax. Our belief in an external world rests partly on the principle of *causality*. Our sensations are referred to external objects as their causes. Yet, the idea of *power*, which is involved in that of cause, he traces to the consciousness of our possessing power in ourselves. He says:—"The idea of the beginning of motion we have only from reflection on what passes in ourselves, where we find by experience, *that barely by willing it, barely by a thought of the mind*, we can move the parts of our bodies which were before at rest" (*Essay on Human Understanding*, bk. ii. ch. xxi. sec. 4).

Berkeley agreed with Locke in deriving our notion of causality

from our self-consciousness as spiritual agents, but reduced physical causation to sense-symbolism. The phenomena of sense he regarded as connected with one another, not as causes and effects, but as signs and things signified.

Reid agrees with Locke's view.—“Causation is not an object of sense. The only experience we can have of it is in the consciousness we have of exerting some power in ordering our thoughts and actions. But this experience is surely too narrow a foundation for a general conclusion, that all things that have had or shall have a beginning must have a cause. This is to be admitted as a first or self-evident principle” (Reid, *Intellectual Powers*, essay vi. ch. vi).

Stewart takes the same position.—“The changes of which I am conscious in the state of my own mind, and those which I perceive in the external universe, impress me with a conviction that some *cause* must have operated to produce them. There is an intuitive judgment involving the simple idea of *causation*” (Stewart, *Philosophical Essays*, vol. 1. ch. iii).

Cousin says:—“It is incontestable that in certain cases we perceive between phenomena simply the relation of succession, and that in certain others we place between them the relation of cause and effect, and that these two relations are not identical with each other. The conviction of every person, and the universal belief of the human race, leaves no doubt on this point. Our acts are only phenomena which appear in the sequence of the operation of the Will; they are judged by us and recognised by others, as the direct effects of our will” (*Hist. of Phil.*, Wright's transl., ii. 209). “The consciousness of our own causality precedes all conception of the principle of causality, consequently all application of this principle (*ib.*, ii. 223). Taking the two terms, the Me or Self, and the movement of the arm, he says:—“At the same time that consciousness seizes the two terms, the reason seizes their relation, and by an immediate abstraction, which has no need of relying on a number of similar facts, it disengages in a single fact the invariable and necessary element from its variable and contingent elements” (*ib.*). “If it be asked how the universal and the necessary are in the relative and the contingent

I reply that Reason also is in us with the Will and the Senses, and that it is developed with them" (*ib.*, ii. 224).

Hume, reducing the relation of cause and effect to that of "constant conjunction," contended that we have no proper idea of cause as implying power to produce, nor of any necessary connection between the operation of this power and the production of the effect. All that we see or know is mere succession, antecedent and consequent; having seen things in this relation, we associate them together, and, imagining that there is some *vinculum* or connection between them, we call the one the cause and the other the effect. "The idea of cause and effect is derived from *experience*, which informs us that such particular objects, in all past instances, have been constantly joined with each other" (*Human Nature*, pt. iii. sec. 6; Green's ed., i. 390). "Thus, not only our reason fails us in the discovery of the *ultimate connection* of causes and effects, but even after experience has informed us of their constant conjunction, it is impossible for us to satisfy ourselves by our reason why we should extend that experience beyond those particular instances which have fallen under our observation" (*ib.*, Green, i. 392). Dr Thomas Brown adopts this view, with the modification that it is in cases where the antecedence and consequence is *invariable* that we attain to the idea of cause. "A cause, in the fullest definition which it philosophically admits, may be said to be that which immediately precedes any change, and which, existing at any time in similar circumstances, has been always, and will be always, immediately followed by a similar change" (Brown, *Inquiry*, p. 13). Experience, however, can only testify that the succession of one thing to another has, in so far as it has been observed, been *unvaried*, not that in the nature of things it is *invariable*. "Invariableness can have place only where there are more instances of sequence than one; and therefore can have nothing to do with constituting the causal character of the individual sequences amongst which the relation of invariableness comes to subsist" (Sam. Bailey, *Letters on Philosophy*, 3rd ser., p. 50).

According to Kant, Causality is a category of thought. In

conformity with a law of our intelligence, we arrange phenomena according to the relation of cause and effect. This, however, is connected with Kant's view, which identifies "phenomena" with "sensuous impressions," and makes knowledge consist in the converting of "the raw material of our sensuous impressions into a knowledge of objects" (Intro. to *Critique of Pure Reason*, p. 1). We cannot conceive objects as successive—cannot have the representation of succession present to our mind—without regarding the successive phenomena as causally related. Instead, therefore, of the conception of cause being derived from sensation, it is a conception without which sensation could not become knowledge. Being the very condition of knowledge, it is seen to be independent of all experience,—that is, a necessary and universal condition of knowledge. Causality must, therefore, be regarded as "a pure conception of the understanding, applying *à priori* to objects of intuition in general" (*Critique*, Transc. Anal., bk. 1. ch. i. sec. 3; Meiklejohn, p. 64; Max Müller, ii. 70). Kant's position as to Causality must be interpreted by reference to his account of *phenomena*, for which purpose the following passage may suffice, attention being turned on the double use of "object":—"An intuition can take place only in so far as the object is given to us. This again is only possible, to man at least, on condition that the object affect the mind in a certain manner. The capacity for receiving representations (receptivity) through the mode in which we are affected by objects, is called *sensibility*. By means of sensibility, therefore, objects are given to us, and it alone furnishes us with intuitions. . . . That sort of intuition which relates to an object by means of sensation, is called an empirical intuition. The undetermined object of an empirical intuition is called a *phenomenon*" (Intro. to Transc. *Æsthetic*, Meiklejohn, p. 21; Max Müller, ii. 18).

Final Cause, though a phrase employing the word "cause" in an unwarrantable sense, as equivalent to end (*τέλος*), has obtained currency in philosophy. "Cause" here points to purpose on the part of an intelligent agent, and the inquiry is concerned with a Teleology—doctrine of Ends. In so far as

the investigation connects with a philosophy of nature, it goes towards the structure of an argument for design.

Cause, as here used, stands as fourth in Aristotle's enumeration—τὸ οὖν τέταρτον. To this the schoolmen gave the name *causa finalis*, final cause; and the conception held a conspicuous place in scholastic philosophy.

When we see means independent of each other conspiring to accomplish certain ends, we naturally conclude that the ends have been contemplated, and the means arranged by an intelligent agent; and, from the nature of the ends and of the means, we infer the character or design of the agent. Thus, the ends answered in creation being wise and good, we recognise not only the existence of an intelligent Creator, but also that He is a Being of infinite wisdom and goodness. This is commonly called the argument from *design* or from *final causes*. Bacon says (*De Aug. Scient.*, lib. iii. cap. v.) that the inquiry into *final causes* is sterile, and Descartes that we cannot know the designs of God in creating the universe unless he reveal them to us. Spinoza inveighed strongly against the argument, alleging that "final causes are nothing more than human fictions" (*Ethics*, pt. i. app.). Leibnitz, on the other hand, in maintaining the principle of sufficient reason, upheld the doctrine of *final causes*, and thought it equally applicable in physics and in metaphysics.

The validity of the argument has been vindicated in a very able manner by Janet, *Final Causes*, transl. Affleck.

"If we are to judge from the explanations of the principle given by Aristotle, the notion of a *final cause*, as originally conceived, did not necessarily imply design. The theological sense to which it is now commonly restricted has been derived from the place assigned to it in the scholastic philosophy; though, indeed, the principle had been long before beautifully applied by Socrates and by the Stoics to establish the truth of a Divine Providence. Whenever, indeed, we observe the adjustment of means to an end, we seem irresistibly impelled to conclude that the whole is the effect of design. The present acceptation, therefore, of the *doctrine of final causes* is undoubtedly a natural one. Still it is not a necessary construc-

tion of the *doctrine*. With Aristotle, accordingly, it is simply an inquiry into tendencies—an investigation of any object or phenomenon, from considering the *ἕνεκα τοῦ*, the reason of it, in something else which follows it, and to which it naturally leads.

“His theory of *final causes* is immediately opposed to a doctrine of chance, or spontaneous coincidence, and must be regarded as the denial of that, rather than as a positive assertion of design. He expressly distinguishes, indeed, between thought and nature. He ascribes to nature the same working, in order to ends, which is commonly regarded as the attribute of thought alone. He insisted that there is no reason to suppose deliberation necessary in these workings of nature, since it is ‘as if the art of shipbuilding were in the timber, or just as if a person should act as his own physician’” (Hampden, introd. to *Moral Philosophy*, lect. iv. p. 113).

“The argument from *final causes*,” says Dr Reid (*Intellectual Powers*, essay vi. ch. vi.), “when reduced to a syllogism, has these two premises:—First, that design and intelligence in the *cause* may, with certainty, be inferred from marks or signs of it in the effect. This we may call the major proposition of the argument. The second, which we call the minor proposition, is, that there are in fact the clearest marks of design and wisdom in the works of nature; and the conclusion is, that the works of nature are the effects of a wise and intelligent *cause*. One must either assent to the conclusion, or deny one or other of the premises.”

The argument from design is prosecuted by Paley, in *Nat. Theol.*; by the authors of *Bridgewater Treatises*; in Burnett's *Prize Essay*; Whewell's *Induct. Sci.*, ii. 90.

CAUSES (Occasional, Doctrine of).—This phrase has been employed by the Cartesians to explain the mode of communication between mind and matter. The soul being a thinking substance, and extension being the essence of body, it is supposed that no intercourse can take place between them without the intervention of the First Cause. The Deity, himself, therefore, on the *occasion* of certain modifications in our minds, excites the corresponding movements of body; and, on

the *occasion* of certain changes in our body, He awakens the corresponding feelings in the mind. This theory, which is involved in the philosophy of Descartes, was fully developed by Malebranche, Regis, and Geulinx. Malebranche's *doctrine* is commonly called the "vision of all things in God,"—who is the "light of all our seeing" (Descartes, *Principia*, pars ii. sec. 36; Malebranche, *Recherche de la Vérité*, vi. 2, 3; Hamilton's *Lectures on Metaphysics*, lect. xvi. i. 300).

CERTAINTY, CERTITUDE (*Certum*, from *cerno*).—Personal assurance of reality, possessed in the exercise of immediate knowledge, or attained by the ingathering of sufficient evidence. Certain knowledge or *certainly* is the confidence with which the mind reposes in the information of its faculties. According to the mode in which it is attained, *certainly* is *immediate* by sense and intuition, and *mediate* by reasoning and demonstration. Self-consciousness reveals with *certainly* the different states and operations of our own minds. We cannot doubt the reality of what our senses clearly testify. Inference, strictly warranted by logical law, gives certainty. Reason reveals to us first truths with intuitive *certainly*.

According to the grounds on which it rests, it is called—*Physical*, when it concerns truth which cannot be otherwise, according to the laws of nature; *Metaphysical*, when applied to truth which cannot be otherwise, such as the first principles of reason; *Moral*, when it involves truth expressed in law, which is an imperative of the life.

In connection with the last of the three, popular usage has introduced "moral certainty" as a condensed expression applicable to conviction resting on moral evidence in default of direct evidence. In absence of proof of the actual occurrence, we may have moral evidence founded on the indications of motive on the part of the agent, and on collateral testimony from a variety of actions. Moral conviction may amount to the highest degree of *probability*, and to all practical purposes may be as influential as *certainly*. For it should be observed that *probability* and *certainly* are two states of mind, and not two modes of the reality. The reality is one and the same, but our knowledge of it may be probable or certain. *Proba-*

bility has more or less of doubt, and admits of degrees. *Certainty* excludes doubt, and admits neither of increase nor diminution.

"*Certain*, in its primary sense, is applied (according to its etymology, from *cerno*) to the state of a person's mind; denoting any one's full and complete conviction; and *generally*, though not always, implying that there is sufficient *ground* for such conviction. It was thence easily transferred metonymically to the *truths* or *events*, respecting which this conviction is rationally entertained. And *uncertain* (as well as the substantives and adverbs derived from these adjectives) follows the same rule. Thus we say, 'It is certain,' &c., meaning that *we* are sure; whereas the fact may be *uncertain* and *certain* to different individuals. From not attending to this, the words *uncertain* and *contingent* have been considered as denoting some quality in the things themselves—and *chance* has been regarded as a real agent" (Whately, *Logic*, app. i.).—V. Locke's *Essay*, bk. ii. ch. vi. and bk. iii. ch. iv.

"The criterion of true knowledge is not to be looked for anywhere abroad without our own minds, neither in the height above, nor in the depth beneath, but only in our knowledge and conception themselves" (Cudworth, *Eternal and Immutable Mortality*, bk. iv. ch. v.).

"The holding of a thing to be true is a phenomenon in our understanding which may rest on objective grounds, but requires also subjective causes in the mind of the person judging. If a judgment is valid for every rational being, then its ground is objectively sufficient, and it is termed a *conviction*. If, on the other hand, it has its ground in the particular character of the subject, it is termed a *persuasion*" (Kant's *Critique of Pure Reason*, Transc. Doct. of Method, ch. ii. sec. 3; Meiklejohn, 496; Max Muller, ii. 703).

As regards the ground of certainty Protagoras and Epicurus in ancient times, and Hobbes and the modern sensationalists, have made *Sense* the measure and ground of certainty. Descartes and his followers founded it on self-consciousness, *Cogito ergo sum*; while others have received as certain only what is homologated by human reason in general.

Certainty is not the peculiar characteristic of knowledge furnished by any one faculty, but is the common inheritance of any or all of our intellectual faculties when legitimately exercised within their respective spheres. Though we are thus naturally and necessarily determined to accept the knowledge furnished by our faculties, our knowledge, according to Kant, cannot be proved to be absolute, or a knowledge of things in themselves as they must appear to all intelligent beings, but is merely relative, or a knowledge of things as they appear to us. Now, it is true that we cannot, as Kant has expressed it, *objectify the subjective*. Without rising out of human nature to the possession of a higher, we cannot sit in judgment on the faculties of that nature. But, admitting that our knowledge is *relative*, we are merely saying it is ours,—it is human,—it is according to the measure of a man,—it is attained by human faculties, and must be relative, bearing proportion to the faculties by which it is attained. We may not know all that can be known of the objects of our knowledge, but still, what we know, we do know,—we possess a veritable knowledge. The ground and encouragement of all inquiry is, that our faculties are fitted to apprehend the reality of things. Faith in their trustworthiness is spontaneous. Doubt concerning it is an after-thought. Scepticism as a creed is self-destructive. He who doubts is *certain* that he doubts. *Omnis qui utrum sit veritas dubitat, in se ipso habet verum, unde non dubitet* (Augustine, *De vera Religione*).

Etiam qui negat veritatem esse, concedit veritatem esse ; si enim veritas non est, verum est, veritatem non esse (Thomas Aquinas, *Sum. Theol.* ; S. Descartes, *Method*, pt. iv.).—V. EVIDENCE, CRITERION, KNOWLEDGE, PROBABLE.

CHANCE, a name under which are classified events the occurrence of which cannot be computed by application of known natural law. Events are referred to “chance” in acknowledgment at once of causality, and of ignorance which restricts us to the statement,—“they happened.” An event or series of events which seems to be the result neither of a necessity inherent in the nature of things, nor of a plan conceived by intelligence, is said to happen by chance. Chance is

opposed to law in this sense, viz., that what happens according to law may be predicted, and counted on. But everything has its own law and its proper cause; and *chance* merely denotes that we know not the proper cause, nor the law according to which a phenomenon occurs. So Aristotle says.—“According to some, *chance* is a cause not manifest to human reasoning.” Δοκεῖ μὲν αἰτία ἡ τύχη, ἄδελον δὲ ἀνθρωπίνῃ διανοίᾳ (*Phys.*, ii. 4). Nothing can be more true than Aristotle’s saying (*Phys.*, lib. ii.), that if there were no end intended, there could be no *chance*.

“It is strictly and philosophically true in nature and reason, that there is no such thing as *chance* or accident; it being evident that these words do not signify anything that is truly an agent or the cause of any event; but they signify merely men’s ignorance of the real and immediate cause” (Samuel Clarke, ser. xcviii.; vol. vi. ser. xiii., ed. 1735).

“Chance is usually spoken of in direct antithesis to *law*, whatever, it is supposed, cannot be ascribed to any law, is attributed to chance. It is, however, certain that whatever happens is the result of some law, is an effect of causes, and could have been predicted from a knowledge of the existence of those causes, and from their laws. . . . An event occurring by chance may be described as a coincidence from which we have no ground to infer an uniformity; the occurrence of a phenomenon in certain circumstances, without our having reason on that account to infer that it will happen again in those circumstances. This, however, when looked closely into, implies that the enumeration of the circumstances is not complete. Whatever the fact be, since it has occurred once, we may be sure that if all the same circumstances were repeated, it would occur again” (J. S. Mill, *Logic*, bk. iii. ch. xvii. sec. 2). “We must remember that the probability of an event is not a quality of the event itself, but a mere name for the degree of reason, we, or some one else, have for expecting it” (*ib.*, ch. xviii.).

“Probability has reference partly to our ignorance, partly to our knowledge. We know that among three or more events, one, and only one, must happen, but there is nothing leading

us to believe that any one of them will happen rather than the others. . . . The theory of *chances* consists in reducing all events of the same kind to a certain number of cases equally possible, that is, such that we are *equally undecided* as to their existence ; and in determining the number of these cases which are favourable to the event of which the probability is sought. The ratio of that number to the number of all the possible cases, is the measure of the probability; which is thus a fraction, having for its numerator the number of cases favourable to the event, and for its denominator the number of all the cases which are possible" (Laplace, *Essai Phil sur les Probabilités*, 5th ed., p. 7 ; Hume, *Essay on Probability*).—V. AVERAGES.

CHARITY (ἀγάπη, *caritas*).—(1) Esteem ; (2) benevolent affection, love, (3) in a narrow conventional sense, almsgiving.

CHASTITY.—(1) The duty of restraining and governing the appetite of sex, including purity of thought, speech, and behaviour ; (2) the virtue as an element in human character.

CHOICE.—(1) Voluntary selection from a variety of objects or pursuits ; (2) often synonymous with *volition*. Properly, *choice* applies to things, *volition* to forms of action. When used in its primary sense, as applicable to things, the ground of choice may be found not merely in the quality of the things, but in sentiment or association peculiar to the individual.

What is named "deliberate choice," emphasising the adjective, is more properly an exercise of will in determining personal conduct, implying deliberation so as to ascertain the bearing of a rule of conduct upon action in the circumstances contemplated. Thus Aristotle, treating of προαίρεσις, says :—"Deliberate preference is most intimately connected with Virtue deliberate preference is joined with law or reason and intelligence (μετὰ λόγου καὶ διανοίας). . . . We deliberate about those subjects of action which are within our own power" (*Ethics*, bk. iii. ch. ii. iii.).

"Choice or preference, in the proper sense, is an act of the understanding ; but sometimes it is improperly put for volition, or the determination of the will in things where there is no judgment or preference ; thus, a man who owes me a shilling

lays down three or four equally good, and bids me take which I choose. I take one without any judgment or belief that there is any ground of preference; this is merely an act of will, that is, a volition" (*Correspondence of Dr Reid*, p. 79; Taylor's *Synonyms*; Tappan's *Appeal to Consciousness*, ch. iii. secs. 4, 5).—
V. WILL.

CIVILITY OR COURTEOUSNESS.—Consideration in manner and conversation for the feelings of others. Dr Ferguson says *civility* avoids giving offence by our conversation or manner (*Institutes of Moral Philosophy*, pt. vi. ch. v.).

CLASSIFICATION (κλῆσις, *classis*, from καλέω, to call, a multitude called together).

"A *class* consists of several things coming under a common description" (Whately, *Logic*, bk. i. sec. 3).

"The sorting of a multitude of things into parcels, for the sake of knowing them better, and remembering them more easily, is *classification*" (Taylor, *Elements of Thought*).

"Classification is a contrivance for the best possible ordering of the ideas of objects in our minds; for causing the ideas to accompany or succeed one another in such a way as shall give us the greatest command over our knowledge already acquired, and lead more directly to the acquisition of more" (J. S. Mill *Logic*, bk. iv. ch. 7).

"*Abstraction, generalisation, and definition* precede *classification*; for if we wish to reduce to regularity the observations, we have made, we must compare them, in order to unite them by their essential resemblances, and express their essence with all possible precision.

"In every act of *classification* two steps must be taken; certain marks are to be selected, the possession of which is to be the title to admission into the class, and then all the objects that possess them are to be ascertained. When the marks selected are really important and connected closely with the nature and functions of the thing, the *classification* is said to be *natural*; where they are such as do not affect the nature of the objects materially, and belong in common to things the most different in their main properties, it is *artificial*" (Thomson, *Outline of Laws of Thought*, 2nd ed., p. 377; 3rd ed., p. 343).

Classification proceeds upon observed resemblances. *Generalisation* rests upon the principle, that the same or similar causes will produce similar effects (Mill, *Logic*, bk. i. ch. vii. sec. 4; M'Cosh, *Typical Forms*, bk. iii. ch. i.).

COGNITION (*cognosco*, to know).—(1) Knowledge, in its widest sense, embracing sensation, perception, conception, notion, and higher intuition; (2) specially, interpretation of sensory impression. Kant says.—“I cannot rest in the mere intuitions, but, if they are to become cognitions, must refer them, as representations, to something as object, and must determine them by means of the former” (Preface to 2nd ed. of *Critique of Pure Reason*, Meiklejohn, xxix.; Max Muller, supplement ii., vol. i. p. 371) — *V. KNOWLEDGE.*

COLLIGATION OF FACTS, in Induction, is a phrase employed by Whewell (*Phil. of Induc. Sci.*, ii. 213), to denote the binding together groups of *facts* by means of some suitable conception. “The descriptive operation which enables a number of details to be summed up in a single proposition, Mr Whewell, by an aptly chosen expression, has termed the Colligation of Facts. . . . I only think him mistaken in setting up this kind of operation, which, according to the old and received meaning of the term, is not induction at all, as the type of induction generally; and laying down throughout his work, as principles of induction, the principles of mere colligation” (J. S. Mill’s *Logic*, bk. iii. ch. ii., “Inductions improperly so called,” 2nd ed., i. 350, *cf.* ii. 312; Thomson, *Outline of Laws of Thought*, 2nd ed., p. 353; Whewell, *Nov. Org. Rem.*, p. 60).

COMBINATION AND CONNECTION OF IDEAS are phrases to be found in bk. ii. ch. xxxiii. of Locke’s *Essay*, in which he treats of what is more commonly called *Association of Ideas* (*q.v.*).

The phrase *Association of Ideas* seems to have been introduced by Locke. It stands as the title to one of his chapters in his *Essay on the Human Understanding*. But in the body of the chapter he uses the phrase *combination of ideas*. These two phrases have reference to the two views which may be taken of the *train of thought* in the mind. In both, under

ideas are comprehended all the various modes of consciousness. In treating of the association of ideas, the inquiry is as to the laws which regulate the succession or order according to which one thought follows another. . But it has been observed that the various modes of consciousness not only succeed in some kind of order, but that they incorporate themselves with one another so as to form permanent and almost indissoluble combinations — V. ASSOCIATION OF IDEAS.

COMMON SENSE (*sensus communis*, κοινὴ αἰσθησις).— (1) Intelligence common to all men, the word “sense” is here used as equivalent to cognitive power, but especially as spontaneous or instinctive. “Common Sense” is thus cognitive power common to humanity. (2) Popular usage, in making it equivalent to sagacity and prudence combined, thus involving a mark of distinction among men. The former is the only philosophic use of the term, and is that intended when the early Scottish Philosophy was named the Philosophy of Common Sense. It is that philosophy which accepts the testimony of our faculties as trustworthy within their respective spheres, and rests secondary or derived knowledge on certain first truths or primitive beliefs, which are the constitutive elements or fundamental forms of our rational nature, and the regulating principles of our conduct. This became the descriptive title of the Philosophy of “the Scotch School,” as it is distinguished for an ultimate appeal to consciousness, and to the principles of intelligence common to the mind of man.

The father of the Scottish Philosophy states his position thus:—“There is a certain degree of *sense* which is necessary to our being subjects of law and government, capable of managing our own affairs, and answerable for our conduct to others. This is called *common sense*, because it is common to all men with whom we can transact business or whom we call to account for their conduct. . . . The same degree of understanding which makes a man capable of acting with common prudence in life, makes him capable of discerning what is true and what is false in matters that are self-evident, and which he distinctly apprehends” (Reid, *Intellectual Powers*, essay vi.

ch. ii., Hamilton's ed., *Works*, p. 422; Stewart's *Elements of Philosophy of Human Mind*, pt. ii. ch. i., *Works*, iii. p. 51).

"A power of the mind which perceives truth, not by progressive argumentation, but by an instinctive and instantaneous impulse; derived neither from education nor from habit, but from nature; acting independently upon our will, whenever the object is presented, according to an established law; and, therefore, not improperly, called a *sense*, and acting in the same manner upon all mankind; and, therefore, properly called *common sense*, the ultimate judge of truth" (Beattie, *Essay on Truth*, pt. i. ch. i., 10th ed., p. 26).

For a full discussion of the Philosophy of Common Sense, with extended reference to authorities—Hamilton, note A to *Reid's Works*, pp. 743–803 For history of the Scottish School—McCosk, *The Scottish Philosophy*.

COMMON.—V. TERM.

COMMUNISM.—A theory of community of property among the members of the state. The theory has been supported partly on economic grounds, partly on ethical. Its pleas are, that by united production, and equal distribution, an increase to the comfort and happiness of human life would be secured; and that by the same means the jealousies and bitterness of competition and class interests would be ended. Its criticism of the existing order, under recognition of rights of private property, is that it involves multitudes in poverty and suffering, while others accumulate wealth. The theory in some cases passes to an attack on the social life as based on the constitution of the family, alleging that this is another fortress of class interests. In this extreme form the levelling process, after reducing men to a herd, would put the guidance of individuals under command of political government, for distribution of food, clothing, work, and for regulation of all social conditions. This theory proceeds on a disregard of personal rights, and assigns impossible functions to civil government. Aristotle has said:—"It is the preserving a just and equal balance of power which is the safety of states. . . . All cannot govern at the same time, but either by the year or according to some other regulation or time. By this means

every one in his turn will be in office, as if shoemakers and carpenters should exchange occupations, and not always be employed in the same calling" (*Politics*, ii. 2). "There are two things chiefly inspiring mankind with care and affection, the sense of what is one's own, and exclusive possession, neither of which can find a place in this sort of community" (*ib.*, ii. 4).

Communism has had its theories and experiments in ancient times, as in the *Republic* of Plato and the government of Sparta; and also in modern times, as in the *Utopia* of Sir Thomas More, and in various schemes in France, Britain, and in the territory of America. The leading names associated with the theory are those of St Simon, Fourier, Augustus Comte, Louis Blanc; and in our own country, David Dale and Robert Owen. Aristotle's *Politics and Economics*; Hobbes's *Leviathan*: on Comte's Social System, Caird's *Social Philosophy and Religion of Comte*: for the fundamental ethical positions as to personal industry and rights of property—Calderwood's *Handbook of Moral Philosophy*, ch. iii. pp. 31–33.

COMPACT (*compingo*, to bind close), that by which men bind or oblige themselves; a mutual agreement.—*V.* CONTRACT.

COMPARISON is the act of carrying the mind from one object to another, in order to discover some relation subsisting between them. The result of *comparison* is knowledge, which the intellect apprehends, but the act is an exercise of attention voluntarily directing the energy of the mind to a class of objects or ideas, and attended by judgment. The result of *comparison* is a judgment. Comparison may thus be regarded as the essential act of thought in all its forms, more simple as well as more complex. The concept, *e.g.*, is the result of the comparison of individual phenomena, the judgment of that of concepts, and the inference of that of judgments. The theorems of mathematics, *e.g.*, are a series of judgments arrived at by comparison, or viewing different quantities and numbers in their relations.

COMPASSION.—*V.* SYMPATHY.

COMPLEX.—"That which consists of several *different*

ings, so put together as to form a whole, is called *complex*. *Complex* things are the subjects of analysis. The analysis of *complex* notions is one of the first and most important exercises of "the understanding" (Taylor, *Elements of Thought*, McCosh, *Intuitions*, p. 158).

COMPREHENSION means the act of fully understanding any object or idea.—*V.* APPREHENSION. For its logical use, *V.* EXTENSION.

COMPUNCTION (*compungo*, to prick or sting), uneasiness on account of something wrong being done.

CONCEPTION (*con.* and *cipio*).—The act of gathering up in a single mental representation the qualities characteristic of one object, or of many objects. *Conception*, the act. *Concept*, the thing conceived. *Conception* and *notion* have commonly been taken as synonymous; "notion" is better reserved for the more generalised knowledge, expressed in general or abstract terms. Hamilton would restrict both terms in this way (*Reid's Works*, p. 360, note). The German name is *Griff*, the gathering together, as if into a single grip. Every *concept* includes, on the one hand, a variety of attributes, and on the other, comprehends a variety of objects. The attributes included are called the *Intension*, and the objects comprehended the *Extension* of the Concept (see these terms). "*Conception* consists in a conscious act of the understanding, bringing any given object or impression into the same class with any number of other objects or impressions, by means of some character or characters common to them all. *Concipimus, id est, capimus hoc cum illo*—we take hold of both at once, we comprehend a thing, when we have learned to comprise it in a known class" Coleridge, *Church and State*, Prelim. Rem., p. 4).

Dr Reid begins his essay on Conception by saying: "*Conceiving, imagining, apprehending, and understanding, having a notion of a thing*, are common words used to express that operation of the understanding which the logicians call *simple apprehension*" (*Intellectual Powers*, essay iv. ch. i.; Hamilton's *Reid*, p. 360).

Hamilton says:—"The words *conception, concept, notion*, should be limited to the thought of what cannot be represented

in the imagination, as the thought suggested by a general term. The Leibnitzians call this *symbolical*, in contrast to *intuitive* knowledge. This is the sense in which *conceptio* and *conceptus* have been usually and correctly employed" (Hamilton, *Reid's Works*, p. 360, note; Hamilton, *Logic*, i. 40).

Mansel says :—" *Conception* must be carefully distinguished as well from mere imagination as from a mere understanding of the meaning of words. Combinations of attributes, logically impossible, may be expressed in language perfectly intelligible. There is no difficulty in understanding the meaning of the phrase *bilinear figure* or *iron-gold*. The language is intelligible though the object is inconceivable. On the other hand, though all conception implies imagination, yet all imagination does not imply conception. To have a conception of a horse, I must not only know the meaning of the several attributes constituting the definition of the animal, but I must also be able to combine these attributes in a representative *image*, that is, to individualise *them*. This, however, is not mere imagination, it is imagination relatively to a concept. I not only see, as it were, the image with the mind's eye, but I also think of it *as a horse*, as possessing the attributes of a given concept, and called by the name expressive of them. But mere imagination is possible without any such relation. . . . Conception, in its lowest degree, implies at least a comparison and distinction of *this* from *that*. . . . The consciousness of a general notion is thus an instance of *symbolical* as distinguished from *intuitive* knowledge" (Proleg., *Logic*, 2nd ed., pp. 24-26).

"The distinction between *conception* and *imagination* is real though it be too often overlooked and the words taken to be synonymous. I can *conceive* a thing that is impossible, but cannot distinctly *imagine* a thing that is impossible. I can *conceive* a proposition or a demonstration, but I cannot *imagine* either. I can *conceive* understanding and will, virtue and vice and other attributes of mind, but I cannot *imagine* them. In like manner, I can distinctly *conceive* universals, but I cannot *imagine* them" (Reid, *Intellectual Powers*, essay iv.).

Kant says :—"Intuitions and conceptions constitute the elements of all our knowledge, so that neither conceptions without

an intuition in some way corresponding to them, nor intuition without conceptions, can afford us a cognition. Both are either pure or empirical. They are empirical, when sensation (which presupposes the actual presence of the object) is contained in them; and pure, when no sensation is mixed with the representation" (*Critique of Pure Reason*, Transc. Logic, introd., Meiklejohn, p. 45; Max Muller, ii. 42).

CONCEPTUALISM is a doctrine in some sense intermediate between *Realism* and *Nominalism*. The *Realist* maintains that genera and species exist independently; that besides individual objects and the general notion from them in the mind, there exist certain *ideas* the pattern after which the single objects are fashioned; and that the general notion in our mind is the counterpart of the idea without it. The *Nominalist* says that nothing exists but things, and names of things; and that universals are mere names. The *Conceptualist* assigns to universals an existence which, as opposed to *real* or *nominal*, may be called *logical* or *psychological*, that is independent of individual objects, but dependent upon the mind of the thinking subject, in which they exist as notions or conceptions (Thomson, *Outline of Laws of Thought*, 2nd ed., p. 112; 3rd ed., p. 126).—**V. RELATION, NOMINALISM.**

CONCLUSION.—The proposition inferred or deduced from the premises in a *Syllogism* (*q.v.*).

CONCRETE (*concreresco*, to grow together), is opposed to *abstract*.

A *concrete* notion is the notion of an object as it exists in nature, invested with all its qualities. An *abstract* notion, on the contrary, is the notion of some quality or attribute deprived of all the specialities with which experience invests it, or separated from the object to which it belongs, or from other attributes with which in actuality it is always associated.—**V. ABSTRACT, TERM.**

CONDITION (*con* and *dare*), that which is attendant on the cause, or co-operates with it, for the accomplishment of the result; or, that which limits the cause in its operation. A pre-requisite in order that something may be, or in order that a cause may operate.

In the language of Inductive Logic, the cause is defined as "the sum-total of the conditions positive and negative taken together; the whole of the contingencies of every description, which, being realised, the consequent invariably follows. But it is common to single out one only of the antecedents, distinguished by active power or efficiency, under the denomination of Cause, calling the others merely Conditions" (Mill, *Logic*, bk. iii. ch. v. sec. 3).

Condition and Conditioned are correlative. The *condition* is the ground presupposed; the *conditioned*, *conditionate*, or *conditional* is that which is determined by it.

"The conditioned" is employed to describe the relative and limited, in contrast with the "unconditioned," which is applied to the absolute and infinite (Hamilton, *Discussions*, Mansel, *Limits of Religious Thought*).

CONDITIONAL.—*V. PROPOSITION, SYLLOGISM.*

CONDITIONED (Law of the).—"I lay it down as a law which, though not generalised by philosophers, can be easily proved to be true by its application to the phenomena;—that all that is conceivable in thought lies between two extremes, which, as contradictory of each other, cannot both be true, but of which, as mutual contradictories, one must" (Hamilton's *Metaphysics*, ii. 368–9). "From this impotence of intellect, we are unable to think aught as absolute" (*Reid's Works*, note D, p. 911). "The law of mind, that the conceivable is in every relation bounded by the inconceivable, I call the *Law of the Conditioned*" (Hamilton, *Metaphysics*, ii. 373). On this law Hamilton founds in support of the doctrine of the *Relativity of Knowledge*.—*V. RELATIVITY.*

CONGRUITY (from *congruo*, to come or run together), the fitness or agreement of one thing with another. *Congruity* in the relations of the agent is given by some philosophers as the characteristic of all right actions. Thus there is a *congruity* or fitness in a creature worshipping his Creator, or in a son honouring his father. This use of the word belongs to the theory which places virtue in "the fitness of things."—*V. MERIT.*

CONJUNCTIVE.—Equivalent to *Hypothetical* (*q.v.*).

CONNATE.—*V. INNATE.*

CONNOTATION.—Correlation of attribute and object. When applied to the Term, it has the same meaning as *Intension* or *Content*, applied to the Concept itself. Thus, a Connotative Term is one which, when applied to an object, is such as to imply in its signification some attribute belonging to that object. "It *connotes*, *i.e.*, notes along with the object something considered as belonging to it, as 'The founder of Rome.' The founding of Rome is, by that appellation, *attributed* to the person to whom it is applied. A term which merely *denotes* an object, without implying any attribute of that object, is called absolute or non-connotative; as Romulus. The latter term, although it *denotes* the same individual as the former, does not, like it, *connote* (*imply* in its signification) any attribute of that individual" (Whately, *Logic*, bk. ii. ch. v. sec. 1).

So Mill—"A non-connotative term is one which signifies a subject only or an attribute only. A connotative term is one which denotes a subject and implies an attribute" (*Logic*, bk. i. ch. ii. sec. 5). According to Mill, the only non-connotative terms are *proper* names. Some, as Jevons, hold that *all* terms are connotative (see *Lessons in Elementary Logic*, lesson v.). Fowler holds that "singular and collective terms are not connotative, except so far as they suggest common terms" (*Elements of Deductive Logic*, p. 20).

CONSCIENCE (*conscientia*, *συνείδησις*, *Gewissen*, joint or double knowledge), that power by which we have knowledge of moral law. This word is similarly compounded with "Consciousness." Conscience expresses more abstractly, "Knowledge with;" Consciousness, the state of the mind as possessing knowledge—knowledge of self and of present experience. As the name for the Moral Faculty, "Conscience" expresses (1) knowledge of the relation of action to moral law—the more usual meaning, or (2) knowledge of the agent's relation to the Moral Governor,—knowledge with God. In its ultimate and strictly philosophic sense it is the power revealing moral law within mind, and of sovereign practical authority on that account. The theory which draws all knowledge from experience, at the same time explaining all life by evolution, naturally makes small account of the name as that of a distinct

faculty. There is considerable diversity in philosophic usage, of which examples follow. Popularly the name is given indiscriminately to the knowing power, and to the dispositions and sentiments connected with its use.

With reference to their views as to the nature of *conscience* or the moral faculty, modern philosophers may be arranged in two great schools, according as their respective theories may be designated the Intellectual or Intuitional; the Sentimental or Experiential.

"The principle in man by which he approves or disapproves of his heart, temper, and actions, is *conscience*—for this is the strict sense of the word, though it is sometimes used to take in more" (Bishop Butler, sermon i., *On Human Nature*). He describes it as "a superior principle of reflection or conscience," adding that "you cannot form a notion of this faculty, conscience, without taking in judgment, direction, superintendency" (sermon ii.).

"Conscience is the reason, employed about questions of right and wrong, and accompanied with the sentiments of approbation and condemnation, which, by the nature of man, cling inextricably to his apprehension of right and wrong" (Whewell, *Syst. Mor.*, lect. vi.).

Adam Smith comes nearer identification of Conscience and Consciousness. "The word '*conscience*' does not immediately denote any moral faculty by which we approve or disapprove. *Conscience* supposes, indeed, the existence of some such faculty, and properly signifies our consciousness of having acted agreeably or contrary to its directions" (Smith, *Theory of Moral Sentiments*, pt. vii. sec. 3).

"*Conscience* coincides exactly with the moral faculty, with this difference only, that the former refers to our own conduct alone, whereas the latter is meant to express also the power by which we approve or disapprove of the conduct of others" (Stewart, *Active Powers*, pt. i. ch. 2. See also Reid's *Active Powers*, essay iii. pt. iii. ch. viii.).

"The internal sanction of duty, whatever our standard of duty may be, is one and the same—a feeling in our own mind, a pain more or less intense, attendant on violation of duty.

. . . This feeling, when disinterested, and connecting itself with the pure idea of duty, and not with some particular form of it, or with any of the merely accessory circumstances, is the essence of Conscience" (J. S. Mill, *Utilitarianism*, p. 41).

"I entirely dissent from Dugald Stewart, and the great majority of writers on the Theory of Morals, who represent Conscience as a primitive and independent faculty of the mind, which would be developed in us although we never had any experience of external authority. On the contrary, I maintain that conscience is an imitation within ourselves of the government without us" (Bain, *Emotions and Will*, 3rd ed., p. 285).

"I find that I undoubtedly seem to perceive, as clearly and certainly as I see any axiom in arithmetic or geometry, that it is 'right' and 'reasonable,' and the 'dictate of reason,' and 'my duty' to treat every man as I should think that I myself ought to be treated in precisely similar circumstances" (Sidgwick, *Methods of Ethics*, 470; cf. Green, *Introduct. to Hume's Ethical Works*, vol. ii. 16; Cyples, *Process of Human Experience*, p. 319).

According to Kant, "Every man, as a moral being, has it originally within him. . . . Conscience is man's *practical reason*, which does, in all circumstances, hold before him his law of duty, in order to absolve or to condemn him. . . . An erring conscience is a chimera; for although, in the objective judgment, whether or not anything be a duty, mankind may very easily go wrong,—yet, subjectively, whether I have compared an action with my practical (here judiciary) reason, for the behoof of such objective judgment, does not admit of any mistake" (*Tugendlehre*, Semple, p. 248; Abbot, 217, 311).

CONSCIOUSNESS (*conscientia*, *Bewusstseyn*, joint knowledge, a knowledge of one thing in connection or relation with another).—The knowledge which the mind has of itself, and of the facts of its own experience.

The meaning of a word is sometimes best attained by reference to the word opposed to it. *Unconsciousness*, that is, the want or absence of *consciousness*, denotes the suspension of all our faculties. *Consciousness*, then, is the state in which we are when any or all of our faculties are in exercise. It is, therefore, the accompaniment of every mental operation.

Sir William Hamilton has remarked (*Discussions*, p. 110, note) that "the Greek has no word for *consciousness*," and that "Tertullian is the only *ancient* who uses the word *conscientia* in a psychological sense, corresponding with our *consciousness*" (*Reid's Works*, p. 775).

The scholastic definition was, *perceptio qua mens de presenti suo statu admonetur*.

"It is altogether as intelligible," says Locke, "to say that a body is extended without parts, as that anything thinks without being conscious of it, or perceiving that it does so. They who talk in this way, may, with as much reason, say that a man is always hungry, but that he does not always feel it; whereas hunger consists in that very sensation, as thinking consists in being conscious that one thinks! . . . Consciousness is the perception of what passes in a man's own mind" (*Essay on Human Understanding*, bk. II. ch. i.).

"We not only *feel*, but we *know* that we *feel*, we not only *act*, but we *know* that we *act*; we not only *think*, but we *know* that we *think*, to think, without knowing that we think, is as if we should not think, and the peculiar quality, the fundamental attribute of thought, is to have a *consciousness* of itself. *Consciousness* is this interior light which illuminates everything that takes place in the soul, *consciousness* is the accompaniment of all our faculties, and, thus to speak, their echo Consciousness is nothing else than the rebound of the action of all our faculties" (Cousin, *Hist. of Mod. Phil.*, i. 274-5). On *consciousness* as the necessary form of thought, see lect. v. of the same volume.

"*Consciousness*," says Reid (*Intellectual Powers*, essay i. ch. i.; see also essay vi. ch. v.), "is a word used by philosophers to signify that immediate knowledge which we have of our present thoughts and purposes, and, in general, of all the present operations of our mind. Whence we may observe that *consciousness* is only of things present. To apply *consciousness* to things past, which sometimes is done in popular discourse, is to confound *consciousness* with memory. It is likewise to be observed that *consciousness* is only of things in the mind, and not of external things. It is improper to say, 'I am *conscious* of the table

which is before me.' I perceive it, I see it, but do not say I am *conscious* of it."

"This word denotes the immediate knowledge which the mind has of its sensations and thoughts, and in general, of all its present operations" (Stewart, *Outlines of Moral Philosophy*, pt. i. sec. 1).

That *consciousness* is not a particular faculty of the mind, but the fundamental form of all the modes of our thinking activity, and not a special mode of that activity, is strenuously maintained by Amadée Jacques, in the *Manuel de Philosophie, Partie Psychologique*; and also by two American writers, Bowen in his *Critical Essays*, and Tappan. This view is in accordance with the saying of Aristotle, οὐκ ἔστιν αἰσθησις αἰσθήσεως—"Non sentimus, nisi sentiamus nos sentire—non intelligimus nisi intelligamus nos intelligere." "No man," said Reid, "can perceive an object without being conscious that he perceives it. No man can think without being conscious that he thinks." As on the one hand we cannot think or feel without being conscious, so on the other hand we cannot be conscious without thinking or feeling."

This view of *consciousness*, as the common condition under which all our faculties are brought into operation, and considering these faculties and their operations as so many modifications of *consciousness*, has of late been generally adopted; so much so, that psychology, or the science of mind, has been denominated an inquiry into the facts of *consciousness*. All that we can truly learn of mind must be learned by attending to the various ways in which it becomes conscious. None of the phenomena of *consciousness* can be doubted.

Hamilton identifies consciousness with immediate knowledge. He says consciousness and immediate knowledge "are terms universally convertible; and if there be an immediate knowledge of things external, there is consequently the consciousness of an outer world" (see *Metaph.*, lects. xii. and xiii.).

He protests strongly also against the view that consciousness is a separate faculty, considering it rather as the condition of the exercise of all the faculties.

The reliability of consciousness has been disputed. It has

been said that "the madman's delusion, which is only an extreme instance of error growing out of causes that are constantly at work to pervert an individual's feeling and to vitiate his reasoning, is of itself sufficient to excite profound distrust, not only in the objective truth, but in the subjective worth, of the testimony of an individual's self-consciousness" (Maudsley, *Physiology and Pathology of Mind*, p. 18, 3rd ed.). In this, consciousness and judgment are confounded.

"The immediate apprehension of the mental images immediately presented to me is necessarily true. Error is possible only when they are subsumed under a general notion. In this sense, internal perception, more trustworthy than external, is the foundation of all philosophical knowledge. That we have a perception of our own inner mental (psychic) life, into which existence immediately enters, without the admixture of a foreign form, is the first stronghold of the theory of knowledge" (Ueberweg, *System of Logic*, p. 88, Lindsay's transl.).

See Hamilton, *Metaph.*, lects. xi.-xvi., and note H in *Reid's Works*, Mill, *Examination of Hamilton*, chaps. viii. and ix.

CONSENT (*Con*, with, and *sentio*, I feel, or think).—Voluntarily expressed agreement with another in thought, feeling, or action.

Assent expresses a conviction of the understanding; *Consent*, acquiescence of disposition and will. The one accepts what is *true*; the other agrees to participate in what is approved as either right or desirable.

CONSENT, UNIVERSAL, Argument from, to the necessity of the truth involved. "These things are to be regarded as *first truths*, the credit of which is not derived from other truths, but is inherent in themselves. As for *probable truths*, they are such as are admitted by *all* men, or by the *generality* of men, or by *wise* men, and among these last, either by all the wise, or by the generality of the wise, or by such of the wise as are of the highest authority" (Aristotle, *Topic.*, bk. i. ch. i.).

Cicero used it to prove the existence of the gods. *De quo autem omnium natura consentit, id verum esse necesse est. Esse igitur deos, confitendum est* (*De Nat. Deor.*, lib. i. cap. xvii.).

The argument is also used (*De Nat. Deor.*, lib. ii. cap. ii., and *Tuscul. Quæst.*, lib. i. cap. xiii., where we read *Omni autem in re, consensio omnium gentium lex nature putanda est*).

Multum dare solemus præsumptioni omnium hominum. Apud nos veritatis argumentum est aliquid omnibus videri (Seneca, *Epist.*, cvii., cxvii.).

Bacon is against this argument in the preface to his *Instauratio Magna*, aphorism 77. Reid applies this argument to establish first principles (*Intellectual Powers*, essay i. ch. ii.).

—V. AUTHORITY.

CONSEQUENCE, CONSEQUENT (*con sequor*, to follow from or with).—A *consequence* is a conclusion or inference which is true or false, according as it follows or does not follow from the premisses. *Consequent* is the term applied to the second member of a *hypothetical proposition* (*q v.*).

CONSERVATIVE FACULTY.—Hamilton's designation for memory proper, the other faculties connected with memory being the *Reproductive* and the *Representative* (see *Metaph.*, lect. xxx.).

CONSILIENCE of INDUCTIONS takes place when an induction obtained from one class of facts coincides with an induction obtained from a different class. This *consilience* is the test of the truth of the theory in which it occurs (Whewell, *Philosoph. Induct. Sci.*).

Paley's *Horæ Paulinæ*, gathering together a number of "undesigned coincidences," is an example of the *consilience* of inductions.

CONSTITUTIVE (German, *constitutiv*), that which, being an essential condition of knowledge, goes to the structure of the object of knowledge, that is, as opposed to that which is merely *regulative* of the procedure of our minds. This is Kant's use of the term. While sensory impression does not of itself give "rational cognition," our intelligence provides conditions in accordance with which a rational cognition is constituted. These are the "forms" of the sensory, and the "categories" of the understanding. Taking the manifold content of sensibility, we attain to rational knowledge by the aid of conceptions which lead to synthetical unity. The conditions of the possi-

bility of experience are thus also the conditions of the possibility of the objects of experience. While the forms of intuition and the categories of understanding are *constitutive* (i.e., actually constitute the object of knowledge), the ideas of reason are only *regulative*, ideals towards whose realisation experience is always striving, but which are never realised as objects in experience.

The distinction between "Constitutive" and "Regulative" appears at various points in Kant's *Critique of Pure Reason*. Thus, treating of "the analogies of experience," he distinguishes the principles of the understanding into mathematical and dynamical, making the former, as concerned with the possibility of existence, constitutive, while the latter, as concerned with variable relations, are only regulative (Meiklejohn's transl., p. 134; Hutchison Stirling's *Text-Book to Kant*, p. 285). When we pass to the ideas of the reason, the idea being "a necessary conception of reason, to which no corresponding object can be discovered in the world of sense" (Meiklejohn, p. 228), of which there are three,—the Soul, the Universe, and God,—these transcendental ideas are only *regulative* (*ib.*, p. 407).

CONTEMPLATION (*contemplor*, means originally to gaze on a shire of the heavens marked out by the augur).—"Keeping the idea which is brought into it (the mind) for some time actually in view, which is called *contemplation*" (Locke, *Essay on Human Understanding*, bk. ii. ch. x. sec. 1).

CONTINENCE (*contineo*, to restrain), the virtue which consists in governing the appetite of sex. It is most usually applied to men, as *chastity* is to women. *Chastity* may be the result of natural disposition or temperament—*continence* carrying with it the ideas of self-government, struggle, and victory.

CONTINGENT * (*contingo*, to touch).—(1) Occurrences dependent upon events which we cannot forecast; (2) variable possibilities under fixed law. An event, the opposite of which is *possible*, is *contingent*; an event, the opposite of which is *impossible*, is *necessary*.

"In popular language, whatever event takes place of which we do not discern the cause why it should have happened in this manner, or at this moment, rather than another, is called

a *contingent* event; as, for example, the falling of a leaf on a particular spot, or the turning up of a certain number when dice are thrown." All events are, in a sense, *necessary*, as forming part of the universal causal nexus, but we call those *contingent* whose necessity we cannot trace (Taylor, *Elements of Thought*).—V. ARBITRARY.

CONTINUITY (*Law of*) —(1) Persistence of movement through successive stages; (2) persistence of being through successive transformations. In the latter reference, now the most familiar, it is the expression of the indestructibility of matter and energy.

The *law of continuity*, though originally applied to *continuity of motion*, was extended by Charles Bonnet to *continuity of being*. He held that all the various beings which compose the universe form a descending scale without any chasm or *saltus*, from the Deity to the simplest forms of unorganised matter. A similar view had been held by Locke and others. The principle of continuity was one of the guiding ideas of the philosophy of Leibnitz. Kant also holds that "all phenomena are continuous quantities" (*Critique of Pure Reason*, Anticipations of Perception). For more recent usage in physical science, see Balfour Stewart's *Conservation of Energy*, and Tait's *Recent Advances of Physical Science*. "The grand principle of Conservation of Energy is simply a statement of the invariability of the quantity of energy in the universe (Tait, p. 17).

Modern science proclaims the *continuity of Law*, i.e., that the transition from lower to higher laws is not abrupt, but gradual, the former surviving, as it were, in the latter.

CONTRACT (*contraho*, to draw together).—A voluntary agreement involving mutual obligations.

Viewed ethically, the obligation to fulfil a contract is the same with that to fulfil a promise (Aristotle, *Rhet.*, i. 10; *Eth. N.*, v. 2, 13). The framing and fulfilling of contracts have in all countries been made the object of positive law. The consideration of the various kinds and conditions of *contracts* thus belongs to Jurisprudence. In Roman law a distinction was made between parts or agreements entered into

without any cause or consideration antecedent, present or future, and pacts which were entered into for a cause or consideration, that is, containing a *συνάλλαγμα*, or bargain, or a *quid pro quo*—in which one party came under obligation to give or do something, on account of something being done or given by the other party. Agreements of the latter kind were properly *contracts*, while those of the former were called *bare pacts*. A *pactum nudum*, or *bare pact*, was so called because it was not clothed with the circumstances of mutual advantage, and was not a valid agreement in the eye of the Roman law. *Nuda pactio obligationem non facit*. It is the same in English law, in which a *contract* is defined as “the agreement of several persons in a concurrent declaration of intention, whereby their legal relations are determined” (*cf.* Maine’s *Ancient Law*, ch. ix.).—V. STATUS.

CONTRADICTION (Principle, Law, or Axiom of), (*contradico*, to speak against, *contradictio*, ἀντίφασις).—It is usually expressed thus:—A thing cannot be and not be at the same time, or a thing must either be or not be, or the same attribute cannot at the same time be affirmed and denied of the same subject. Aristotle laid down this principle as the basis of all Logic, and of all Metaphysic (*Metaph.*, lib. iii. cap. iii. sec. 3; lib. ix. cap. vii.; lib. x. cap. v.; lib. iv. cap. iii. sec. 13; lib. iv. cap. v. sec. 59; lib. iii. cap. ii. sec. 12, *Analyt. Prin.*, ii. 2, 53, B, 15).

Attacked in ancient times by the Sceptics and Epicurus, and in the Middle Ages by the Scotists, it has been subjected by modern philosophers to a searching scrutiny. Locke repudiated it as useless for the purpose of attaining real knowledge, its only use being, according to him, didactic and argumentative (see *Essay on Human Understanding*, iv. 7). Leibnitz (*Novv. Essays*, iv. 2, sec. 1) vindicated its value and its innate character against Locke’s attack. Considering it insufficient, however, as the basis of all truth and reasoning, he added the principle of the *sufficient reason* (*q.v.*). Kant thought this principle good only for those judgments of which the predicate is implied in the subject; or, as he called them, analytic judgments; as when we say, all body has extension.

The idea of extension being implied in that of body, it is a sufficient warrant of the truth of such a judgment, that it implies no *contradiction*. In synthetic judgments, on the contrary, we rest either on *à priori* grounds of reason, or on the testimony of experience, according as they are *à priori* or *à posteriori*. Hegel considers it as the true expression of the procedure of thought at a certain stage—that of the ‘abstract’ understanding. But the distinctions which seem to understanding to be absolute are overcome by reason, which finds a deeper unity in the identity of opposites; and thus, though all thought proceeds according to the principle of contradiction, that principle is not to be taken as a final statement of truth, but only as its provisional expression (*Logic of Hegel*, Wallace, p. 189). Hamilton considers this principle, which he calls the law of *non-contradiction*, equally primary with that of Identity, the one being the positive and the other the negative expression of the same law (*Lectures on Logic*, i. 81-2).—

I. IDENTITY. Ueberweg, *System of Logic*, pp. 235 ff, transl. by Lindsay.

CONTRADICTIONARY.—The CONTRADICTIONARY of any *Term* is its mere negation, *e.g.*, *not-white* is the contradictory of *white*. So the contradictory of any *Proposition* is its mere negation, *e.g.*, *Some men are not white* is the contradictory of *All men are white*. The contradictory of the Universal Affirmative (A) is the Particular Negative (O); of the Universal Negative (E) the Particular Affirmative (I). Of two contradictory propositions, one is necessarily true and the other false.

CONTRAPOSITION.—A so-called “immediate inference,” which is in reality only a different form of statement, *e.g.*, *Every S is P*; therefore, *No not-P is S*. It consists in denying the original subject of the contradictory of the original predicate.

CONTRARY.—Aristotle defines *contrary*, “that which in the same genus differs most;” as in colour, white and black; in sensation, pleasure and pain; in morals, good and evil. *Contrary*, like *contradictory*, is applied both to *Terms* and *Propositions*. This relation to one another is different from that of contradictions, *e.g.*, “Pleasure and pain are opposed to each other as *contraries*, not as *contradictories*, that is, the

affirmation of the one implies the negation of the other, but the negation of the one does not infer the affirmation of the other; for there may be a third or intermediate state, which is neither one of pleasure nor one of pain, but one of indifference" (Hamilton, *Metaph*, lect. xlii. vol. ii. p. 436). Of Propositions, the Universal Affirmative (A) and the Universal Negative (E) are opposed to one another as contraries, and of these both cannot be true, and both may be false. Thus, the affirmative of the one implies the negative of the other, but not *vice versa*. *Sub-contrary* propositions are the particular affirmative (I) and the particular negative (O). Of these both may be true, and only one can be false.

CONVERSION.—The transposition of the subject of a proposition into the place of the predicate, and of the predicate into the place of the subject. The proposition to be *converted* is called the *convertend*, and that into which it is converted the *converse*. Logical conversion is one species of *Immediate Inference*, the truth of the *converse* being inferred from the truth of the *convertend* by conversion. No term must be distributed in the *converse* which was undistributed in the *convertend*. It is of three kinds, viz, *simple conversion*, *conversion per accidens* or *by limitation*, and *conversion by negation or contraposition*.

COPULA (The) is that part of a proposition which indicates that the predicate is affirmed or denied of the subject. This is sometimes done by *inflection*; as when we say, Fire burns; the change from *burn* to *burns* showing that we mean to affirm the predicate burn of the subject fire. But this function is more commonly fulfilled by the word *is*, when an affirmation is intended—*is not*, when a negation; or by some other part of the verb *to be*, and the copula may always be resolved into this form. Sometimes *is* is both copula and predicate, e.g., "One of Jacob's sons *is not*." But the copula, merely as such, does not imply real existence, e.g., "A faultless man *is* a being feigned by the Stoics" (see Whately, *Logic*, bk. ii. ch. i. sec. 2; Mill, *Logic*, bk. i. ch. iv. sec. 1; Fowler, *Deductive Logic*, p. 25).

COROLLARY.—Applied to a consequence following from something already demonstrated, an *additional* element of knowledge made good by some previous attainment. This is

in accordance with the etymology of the word, which in its earlier uses signified a surplus or addition, and is so used by Shakespeare (*Tempest*, act iv. scene i.).

CORRECTIVE.—*V.* PUNISHMENT.

CORRELATE.—*V.* RELATION.

COSMOGONY (κόσμος, world; γίγνομαι, to come into being), a theory of the origin of the world.

The different cosmogonies may be comprehended under two classes :—

1. Those which represent the *matter* though not the form of the world to be from eternity.

2 Those which assign both the matter and form of the world to the direct agency of a spiritual cause.

Pythagoras is reported as having taught that the monad was the beginning of all, from this an indefinite duad, from these numbers, next signs, then plane figures, then solid bodies, then the four elements—fire, water, earth, and air,—whence the world, which is possessed of life and intellect (Diog. Laert., lib. viii. 48). The Atomists, Leucippus and Democritus, taught that the origin of all was in indivisible and eternal atoms, similar in nature but differing in form and position (Aristotle, *Metaph.*, i. 4). According to Aristotle, matter is eternal; God acts directly upon the heavens; Nature has in it the principle of motion and rest; all motion is directed to an end; and, in course of the motion, the elements are originated, and beyond this, organised being.

COSMOTHETIC IDEALISTS.—An alternative designation applied by Hamilton to *Hypothetical Dualists*,—a class which constitutes, he says, “the great majority of modern philosophers. Denying our immediate or intuitive knowledge of the external reality, whose existence they maintain, they, of course, hold a doctrine of mediate or representative perception, and, according to the various modifications of that doctrine, they are again subdivided into those who view, in the immediate object of perception, a representative entity present to the mind, but not a mere mental modification, and into those who hold that the immediate object is only a representative modification of the mind itself” (*Metaph.*, lect. xvi.).

COSMOLOGY, Rational.—A theory of the universe, satisfying the requirements of human reason.—*V. METAPHYSICS.*

COURAGE (ἀνδρεία).—The manly or soldierly virtue,—the second of the Cardinal virtues described by Plato (*Republic*, lib. iv. 429), defined as the right kind of fear.

CRANIOLOGY.—A theory of the skull, designed by reference to its measurement and form to supply data for judgment concerning brain-power and mind.

CREATION.—The origin of finite being. Unless we deny the existence of God, we must either believe in *creation* or accept one or other of the two hypotheses, of which the one may be called *theological dualism*, the other *pantheism*. According to the former, there are two necessary and eternal beings, God and matter. According to the latter, all beings are but modes or manifestations of one eternal and necessary being. A belief in *creation* admits only one necessary and eternal being, at once substance and cause, intelligence and power, absolutely free and infinitely good.

CREDIBILITY.—*V. TESTIMONY.*

CREDULITY.—(1) The exercise of mind in accepting the testimony of others; (2) facility of assent, in absence of sufficient evidence" (Lotze, *Microcosmus*, i. 374; Smith, *Theory of Moral Sentiments*, pt. vii. sec. 4; Reid, *Inquiry*, ch. vi. sec. 24; *Active Powers*, essay iii. pt. i. ch. ii.; Stewart, *Active Powers*, bk. iv. pt. i. ch. iii.).

CRITERION (κριτήριον, κρίνειν, to discriminate; κριτής, judge).—(1) An organ by which truth is attained; (2) a ground of judgment, or a test of certainty, including forms of evidence, or standards of judgment. It has been distinguished into the *criterion a quo*, *per quod*, and *secundum quod*—or, the *being* who judges, the *organ* or faculty by which he does so, and the *rule* according to which he judges. The last is criterion in the proper sense.

"With regard to the *criterion* (says Edw. Poste, M.A., *Introd. to transl. of Poster. Analyt. of Aristotle*), or organs of truth, among the ancient philosophers, some advocated a simple and others a mixed *criterion*. The advocates of the former were

divided into Sensationalists or Rationalists, as they advocated sense or reason; the advocates of the latter advocated both sense and reason. Democritus and Leucippus were Sensationalists; Parmenides and the Pythagoreans were Rationalists; Plato and Aristotle belonged to the mixed school. Among those who advocated reason as a *criterion*, there was an important difference: some advocating the common reason, as Heraclitus and Anaxagoras; others, the scientific reason, or the reason as cultivated and developed by education, as Parmenides, the Pythagoreans, Plato, and Aristotle. In the *Republic* (bk. vii.), Plato prescribes a training calculated to prepare the reason for the perception of the higher truths. Aristotle requires education for the moral reason. The older Greeks used the word *measure* instead of *criterion*, and Protagoras said that man was the measure of all truth. Thus Aristotle interprets to mean that sense and reason are the organs of truth, and he accepts the doctrine, if limited to these faculties in a healthy and perfect condition." The question of the criterion of truth became still more prominent in the Post-Aristotelian schools.

"If truth consists in the agreement of a cognition with its object, then this object must thereby be distinguished from others. Now an universal criterion of truth would be such as holds good of all cognitions, without distinction of their objects. It is plain, however, that as in the case of such a criterion there is abstraction from every matter of cognition (reference to its object), and truth precisely concerns this matter, it is quite impossible and absurd to ask still after a criterion of the truth of this matter of the cognitions; and that, therefore, it is impossible also to assign any adequate criterion of truth that shall at the same time be universal. What is to be said here, then, is that of the truth of cognition as regards matter there is no universal criterion to be required, for any such were a contradiction in itself. But it is equally plain, as regards cognition in mere form (all matter apart), that a logic confined to the universal and necessary rules of the understanding must furnish first in these rules criteria of the truth. For what contradicts these is false, inasmuch as the understanding

would then contradict its own universal rules of thought, and consequently its own self. . . . The merely logical criterion of truth, agreement of cognition, namely, with the universal and formal laws of the understanding and reason, is certainly the *conditio sine qua non*, or the negative condition of all truth. Further, however, logic cannot go; and the error which concerns not the form, but the matter, is not to be detected by any touchstone of logic" (Kant's *Critique of Pure Reason*, pt. II., introd., sec. iii.; Stirling's *Text-Book of Kant*, p. 176, Meiklejohn, 51). On the *criteria* of Evidence or Testimony, see Sir G. C. Lewis, *On Authority in Matters of Opinion*.

CRITICISM, CRITIQUE (*Kritik*).—(1) test of the merits of a work; (2) employed by Kant to designate a philosophy attained by critical discrimination of those elements of knowledge which are given by the Understanding or by the Reason, in contrast with those derived from experience. "That all our knowledge begins with experience admits of no doubt . . . but it by no means follows that all arises out of experience. . . . It is, therefore, a question . . . whether there exists a knowledge altogether independent of experience, and even of all sensuous impressions? Knowledge of this kind is called *à priori* in contradistinction to empirical knowledge, which has sources *à posteriori*, that is, in experience. . . . From all that has been said, there results the idea of a particular science, which may be called the *Critique of Pure Reason*. For reason is the faculty which furnishes us with the principles of knowledge *à priori* We can regard a science of the mere criticism of pure reason, its source and limits, as the *propædæutic* to a system of pure reason. Such a science must not be called a Doctrine, but only a Critique of Pure Reason" (Kant's introduction to the *Critique of Pure Reason*).—V. TRANSCENDENTAL.

CRUCIAL INSTANCE.—A case of a phenomenon which alone is sufficient to decide between two rival hypotheses (see Bacon, *Nov. Organ.*, bk. ii. aph. 36; Mill, *Logic*, bk. iii. ch. viii. and x.; Fowler, *Inductive Logic*, pp. 149–152).—V. HYPOTHESIS.

CUMULATIVE (The Argument).—An argument gaining in force by increase of evidence and of reasons as it

advances, each new point having additional testimony for the conclusion. Its strength does not lie in the connection of the points with each other, but simply in their sum. For example, "the proof of a Divine agency is not a conclusion which lies at the end of a chain of reasoning, of which chain each instance of contrivance is only a link, and of which, if one link fail, the whole fails; but it is an *argument* separately supplied by every separate example. An error in stating an example affects only that example. The argument is *cumulative* in the fullest sense of that term. The eye proves it without the ear, the ear without the eye" (Paley, *Nat. Theol.*, ch. vi.).

CUSTOM (*Consuetudo*).—(1) A common practice; (2) the familiar. It is distinguished from habit, facility acquired by repetition. On the subject of Customs and Customary Law, see Maine, *Ancient Law*, ch. i., and the same author's *Village Communities in the East and West*.

CYNIC.—One of the schools of Philosophy, formed after the days of Socrates, noted for the prominence given to that part in the teaching of Socrates which urged self-denial and independence of external advantages.

After the death of Socrates, some of his disciples, under Antisthenes, were accustomed to meet in the Cynosargos, one of the gymnasias of Athens,—and hence they were called *Cynics* (Diog. Laert., lib. vi. cap. xiii.).

Antisthenes was the founder of the school. He treated, as Plato did, of the distinction between opinion and knowledge,—*παρὰ δόξης καὶ ἐπιστήμης* (Diog. Laert., lib. vi. cap. xvii.), and insisted that virtue is the true requisite for a happy life. "To the Cynic nothing is good but virtue, nothing bad but vice, and what is neither the one nor the other is for man indifferent" (Zeller, *Philosophy of the Greeks*, Reichel's transl., Soc. and the Socrat. Schools, p. 256).

Diogenes is the name most familiar as representative of the school, being pre-eminently "The Cynic," by his teaching, character, and habits giving definiteness to the name, though somewhat exaggerating its characteristics. He is well described by Zeller as "that witty and eccentric individual, whose imperturbable originality, ready wit, and strength of character,

admirable even in its excesses, no less than his fresh and vigorous mind, have been held up to view as forming the peculiar type of character of the ancient world" (*ib.*, p. 245). The weakness of the school lay in its ascetic tendency, carried even to the extent of contemptuous disregard of the ordinary notions and susceptibilities of men. This school is the historic precursor of the Stoics.

CYRENAIC.—Another school of Philosophy, formed from amongst those who had come under the sway of Socrates. Its founder was Aristippus of Cyrene, who was attracted to Athens by the fame of Socrates (Diog. Laert., lib. ii.). Under his guidance the thought and practice of the school tended in the contrary direction from that of the Cynics, exalting pleasure as the desirable, not as if escape from pain were enough, but making attainment of pleasure by direct effort, guided by regard to the known consequences of actions, the end of life. While at the opposite pole from asceticism, it still insisted on the need for self-regulation as a necessary condition for happiness in life. On account of the prominence given to enjoyment, the school favoured in some measure a sceptical tendency in thought, along with self-indulgence in practice. The historic relations connect the Cyrenaics with the Epicureans of later days (Zeller, *Philosophy of the Greeks*, Soc. and the Socrat. Schools, Reichel, ch. xiv.).

DÆMON (δαίμων or δαιμόνιον).—The term (1) in earliest usage meant a god, one of the order of deities; (2) later, an inferior deity, acting the part of a messenger for the gods, specially in communicating their will to men; this is the sense in which it is applied to the dæmon or genius of Socrates; (3) in latest use, an evil spirit.

Socrates declared that he had a friendly spirit, or *Dæmon*, who restrained him from things he was about to do.

"He is a great spirit? (δαίμων), and like all that is spiritual he is intermediate between the divine and the mortal." "And what is the nature of this spiritual power?" Socrates said. "This is the power," Diotima said, "which interprets and conveys to the gods the prayers and sacrifices of men, and to men the commands and rewards of the gods; and this power spans the chasm which divides them, and in this all is bound together" (Plato's *Symposium*, 202, Jowett).

In his *Apology*, Socrates refers to the coming of the *δαίμωνιον* as a well-known characteristic of his life, inconsistent with the charge of atheism brought against him. The Daimonion is spoken of as a Voice, a God, and a Messenger from the God.

Plutarch has a Dialogue on the *Dæmon* of Socrates, and Apuleius also wrote *De Deo Socratis* (Ueberweg's *Hist.*,¹ 236).

DARWINIAN THEORY—DARWINISM.—V. EVOLUTION.

DATUM, that which is given or granted, as a position from which to reason. Thus facts are the data for observational science; axioms for mathematics; and the conditions of the understanding and first truths of the reason are the data for metaphysics.

DEDUCTION (*de lucere*, to draw from), drawing a particular truth from a general, antecedently known, as distinguished from *Induction*, rising from particular truths to a general.

The syllogism is the form of *deduction*. "An enunciation in which, from the truth of certain assertions, the truth of another assertion different from the first is inferred" (Aristotle, *Prior Analyt.*, bk. i. ch. i.).

The principle of *deduction* is, that things which agree with the same thing agree with one another. The principle of *induction* is, that in the same circumstances, and in the same substances, from the same causes the same effects will follow.

The mathematical and metaphysical sciences are founded on *deduction*; the physical sciences with empirical Psychology rest on *induction*.

Mill holds that all reasoning is ultimately inductive. For his views as to the relation of induction and deduction, the nature of the syllogism and mathematical inference, see *Logic*, bk. ii. See also Whewell, *Phil. of Induct. Sci.* For the Kantian use of the term, see next article.

DE FACTO and DE JURE.—With some offences the penalty attaches to the offender at the instant when the fact is committed; in others, not until he is convicted by law. In the former case he is guilty *de facto*, in the latter *de jure*.

De facto is commonly used in the sense of *actually* or *really*,

and *de jure* in the sense of *rightfully* or *legally*; hence the philosophical use of the terms. A *de facto* proof is a mere "natural history" of the facts; a *de jure* proof is a vindication of their existence, *e g*, the principle of causality may be proved *de facto*, *i.e.*, it may be shown to be as a matter of fact accepted and acted upon by men, or *de jure*, *i.e.*, it may be shown to be the necessary presupposition of the facts of experience, or of experience itself. This last is the Kantian method of proof, called by him *Transcendental Deduction*.

DEFINITION (*definio*, to mark out limits), "is used in Logic to signify an expression which explains any term so as to *separate* it from everything else, as a boundary separates fields" (Whately). A *Definition* is a categorical proposition, consisting of two parts or members, *viz.*, a subject defined (*membrum definitum*) and the defining attributes of the subject, *i.e.*, those by which it is distinguished from other things (*membrum definiens*).

Logicians distinguish definitions into *Nominal* and *Real*. Those are called *Nominal* which explain merely the *meaning of the term*; and *real*, which explain the nature of the thing signified by the term. See Whately, *Logic*, bk. ii. chap. v. sec. 6.

"By a *real*, in contrast to a *verbal* or *nominal* definition, the logicians do not intend 'the giving an adequate conception of the nature and essence of a thing,' that is, of a thing considered in itself, and apart from the conceptions of it already possessed. By *verbal* definition is meant the more accurate determination of the signification of a *word*; by *real* the more accurate determination of the contents of a *notion*. The one clears up the relation of *words to notions*, the other of *notions to things*. The substitution of *notional* for *real* would, perhaps, remove the ambiguity. But if we retain the term *real*, the aim of a *verbal* definition being to specify the *thought denoted by the word*, such definition ought to be called *notional*, on the principle on which the definition of a notion is called *real*; for this definition is the exposition of what things are comprehended in a thought" (Hamilton, *Reid's Works*, p. 691, note).

On the question whether logical Definition is *real* or *nominal*,

various views are held. On the one hand, *e.g.*, Mansel says :—“In the sense in which *nominal* and *real* definitions were distinguished by the scholastic logicians, logic is concerned with *real*, *i.e.*, *notional* definitions only ; to explain the meaning of words belongs to dictionaries or grammars” (Prolegom, *Logic*, p. 189). Whately, on the other hand, holds that “Logic is concerned with *nominal* definitions alone” (*Logic*, bk. ii ch. v. sec. 6). Mill also says—“The simplest and most correct notion of a *definition* is a proposition declaratory of the meaning of a word” (*Logic*, bk. i. ch. viii. sec. 1). Accordingly he considers a Definition a “purely verbal” proposition.

“There is a real distinction between definitions of names and what are erroneously called definitions of things ; but it is that the latter, along with the meaning of a name, covertly asserts a matter of fact. This covert assertion is not a *definition*, but a postulate. The *definition* is a mere identical proposition, which gives information only about the use of language, and from which no conclusions respecting matters of fact can possibly be drawn. The accompanying postulate, on the other hand, affirms a fact which may lead to consequences of every degree of importance. It affirms the real existence of things, possessing the combination of attributes set forth in the definition, and this, if true, may be foundation sufficient to build a whole fabric of scientific truth” (Mill, *Logic*, bk. i. ch. viii. sec. 6).

Real definitions are sometimes divided into *essential* and *accidental*. An *essential* definition states what are regarded as the constituent parts of the essence of that which is to be defined ; and an *accidental definition* (or description) lays down what are regarded as circumstances belonging to it, *viz.*, properties or accidents, such as causes, effects, &c. But in reality all Definition is *essential*, and hence is not to be confused with *Description (q.v.)*. The Definition is an account of the *essence* of the notion or thing ; hence it must contain the *genus proximum* and the *differentia*. For various other classifications of Definitions, see Ueberweg's *System of Logic*, p. 164, Lindsay's transl.

The *Faults* of Definition are thus enumerated by Ueberweg

(*Logic*, p. 172, Lindsay's transl.):—(1) Too great *width* or *narrowness*; (2) *Redundancy*, or the mention of derivative determinations or *properties*, besides the *essence*; (3) *Tautology*, when the notion to be defined is repeated in the Definition; (4) *Circulus in Definiendo*, or the attempt to define a notion by means of those notions which presuppose it; (5) Definition by *figurative expression* or by *mere negatives*.

Aristotle, *Topic*, lib. vi.; *Poster. Analyt*, lib. ii.; *Port Royal Logic*, part i. ch. xii., xiii., xiv.; part ii. ch. xvi.; Locke, *Essay on Human Understanding*, bk. iii. ch. iii. and iv., Reid, *Account of Aristotle's Logic*, ch. ii. sec. 4.

DEIST (*Deus*, God).—(1) Properly the Latin form, identical in significance with the Greek form, Theist (*θεός*, God); (2) technically distinguished from Theist, Deist being used to designate one who believes in an Eternal Being as the source of all finite existence, but denies his Personality, or, at least, his personal government of the universe; Theist, to describe one who believes in God's direct personal government in accordance with fixed laws, and for righteousness,—popularly, one who admits natural, but denies revealed religion; (3) antagonism of meaning so complete that "Deistic" has been made equivalent to denial of the "Theistic" position, by acceptance of a materialistic (atheistic) scheme of existence, although the term is etymologically the contradiction of unbelieving, and especially of atheistic thought.

Granting a distinction between Transcendental Theology and Natural Theology, Kant takes Deist to describe the believer in the former—Theist as the name for the believer in the latter. "If by the term *Theology* I understand the cognition of a primal being, that cognition is based either upon reason alone (*theologia rationalis*) or upon revelation (*theologia revelata*). The former cogitates its object either by means of pure transcendental conceptions, as an *ens originarium*, *realissimum*, *ens entium*, and is termed *transcendental theology*; or by means of a conception derived from the nature of our own mind, as a supreme intelligence, and must then be entitled *natural theology*. The person who believes in a transcendental theology alone is termed a *Deist*; he who acknowledges the possibility

of a natural theology also a *Theist*" (Kant's *Critique of Pure Reason*, Critique of all Theology, Transcendental Dialectic, bk. II. ch. iii. sec. 7; Meiklejohn, 387.

The term Deist was used, towards the close of the seventeenth century and beginning of the eighteenth, as descriptive of unbelievers united by their opposition to revealed religion (Leland's *View of Deistical Writers*; Ueberweg's *History of Philosophy*, ii. 371; L. Stephen's *English Thought in the Eighteenth Century*, Lecky's *History of Rationalism*).

DEMERIT.—V. MERIT.

DEMIURGE (δημιουργός) (1) originally, a skilled workman; (2) later, to describe God, as the maker of the world, as "Architect." Socrates and Plato represented God under the image of Architect,—the World-BUILDER. For Plato's treatment, see specially the *Timæus*, Ueberweg's *Hist.*, i. 123, Schwogler's *Hist.*, 79, 82.

DEMONSTRATION (*demonstro*, to point out, to cause to see).—(1) In old English writers this word was used to signify the *pointing out* of the connection between a conclusion and its premises, or between a phenomenon and its asserted cause; (2) it now denotes a necessary consequence, and is synonymous with *proof* from first principles. To draw from a necessary and universal truth consequences which necessarily follow, is *demonstration*. To connect a truth with a first principle, to show that it is this principle applied or realised in a particular case, is to demonstrate. The result is science, knowledge, certainty. Those general truths arrived at by induction in the sciences of observation are certain knowledge. But it is knowledge which is not definite or complete. It may admit of increase or modification by new discoveries, but the knowledge which *demonstration* gives is fixed and unalterable.

A *demonstration* may therefore be defined as a reasoning consisting of one or more arguments, by which some proposition brought into question is shown to be contained in some other proposition assumed, whose truth and certainty being evident and acknowledged, the proposition in question must also be admitted as certain.

Demonstration is *direct* or *indirect*. *Direct demonstration* is

descending—when starting from a general truth we come to a particular conclusion, which we must affirm or deny; or *ascending*—when starting from the subject and its attributes, we arrive by degrees at a general principle, with which we connect the proposition in question. Both these are deductive, because they connect a particular truth with a general principle. *Indirect demonstration* is when we admit hypothetically a proposition contradictory of that which we wish to demonstrate, and show that this admission leads to absurdity, that is, to an impossibility or a contradiction. This is *demonstratio per impossibile*, or *reductio ad absurdum*. It should only be employed when *direct demonstration* is unattainable.

The theory of *demonstration* is to be found in the *Organon* of Aristotle, "since whose time," says Kant, "Logic, as to its foundation, has gained nothing."

DEONTOLOGY (τὸ δέον, what is due, or binding; proper or suitable; λόγος, discourse).—Theory of duty. The etymological sense is a doctrine of duty; yet it was specially attractive to Bentham, the expounder of Utilitarianism, who urged that the word "ought" should be banished.

"*Deontology*, or that which is proper, has been chosen as a fitter term than any other which could be found to represent, in the field of morals, the principle of *utilitarianism*, or that which is useful" (Bentham, *Deontology; or, the Science of Morality*, i. 34).

"The term *deontology* expresses moral science, and expresses it well, precisely because it signifies the *science of duty*, and contains no reference to utility" (Whewell, *Preface to Mackintosh's Prelim. Dissert.*, p. 30).

"The ancient Pythagoreans defined virtue to be Ἐξὶς τοῦ δέοντος; that is, the habit of duty, or of doing what is binding, the oldest definition of virtue of which we have any account, and one of the most unexceptionable which is yet to be found in any system of philosophy" (Stewart, *Active and Moral Powers*, bk. iv. ch. 5, § 2).

Hamilton (*Reid's Works*, p. 540, note) observes that ethics are well denominated *deontology*.

DESCENT.—*V. EVOLUTION.*

DESCRIPTION.—Expanded or accidental definition, giving not only the essence, but properties and accidents in addition, or the latter alone without the essence; e.g., “a triangle is a space enclosed by three straight lines, and whose angles are equal to two right angles.”—**V. DEFINITION.**

DESERT.—**V. MERIT.**

DESIGN (*designo*, to mark out).—Adaptation of means to ends. The evidence of design consists in the marks found in objects or events, of adaptation to the attainments of definite results. A philosophic theory of such evidence is named Teleology (τέλος, end, and λόγος, discourse), the theory of ends, awkwardly named “final causes.”

“What is done, neither by accident, nor simply for its own sake, but with a view to some effect that is to follow, is said to be the result of *design*. None but intelligent beings act with *design*; because it requires knowledge of the connection of causes and effects, and the power of comparing ideas, to conceive of some end or object to be produced, and to devise the means proper to produce the effect. Therefore, whenever we see a thing which not only may be applied to some use, but which is evidently made for the sake of the effect which it produces, we feel sure that it is the work of a being capable of thought” (Taylor, *Elements of Thought*).

For Kant's criticism of the argument from design as, at the most, proving only an architect of the universe, and thereby driving us back on something more than the testimony of experience, see *Critique of Pure Reason*, Transcendental Dialectic, ch. iii., Meiklejohn's transl., p. 370; *Werke*, Roseneranz, ii. 470.

On the argument for the being of God from the evidences of *design*, or the adaptation of means to ends in the universe, see Xenophon, *Memorabilia of Socrates*, bk. i. ch. iv.; Buffier, *Treatise on First Truths*; Reid, *Intellectual Powers*, essay vi. ch. vi.; Stewart, *Active and Moral Power*, bk. iii. ch. ii.; Paley, *Nat. Theol.*; *Bridgewater Treatises*; *Burnett Prize Essays*; Mill, *Essays on Religion*, p. 167; Janet's *Final Causes*.
—**V. CAUSE (FINAL.)**

DESIRE.—Craving, uneasy sense of want, with longing

for satisfaction. Desire may have its origin either in the body or in the mind, but it is in every case a mental condition, and under personal control on this account. Even physical desire is liable to increase or diminution in accordance with intelligent self-direction in the matter.

While *Desire* implies intelligence, it is not the mere efflux or product of intelligence; even when the object of *desire* is known, it is not solely in consequence of knowing it that we desire it, but because we have an inclination towards certain objects or ends in which there is a fitness to give us pleasure. Our *desires* of such ends or objects are *natural* and *primary*. *Natural*, but not *instinctive*, for they imply intelligence; *primary*, and not *factitious*, for they result from the constitution of things, and the constitution of the human mind, antecedent to experience and education.

Green uses the word Desire in a still more restricted sense, distinguishing mere natural impulses which involve only a *feeling* of self from Desires proper which involve the *consciousness* of self. "The latter involves a consciousness of its object, which in turn implies a consciousness of self. In this consciousness of objects which is also that of self, or of self which is also a consciousness of objects, we have the distinguishing characteristic of desire (as we know it), of understanding and of will, as compared with those processes of the animal's soul with which they are apt to be confused. And this consciousness is also the common basis which unites desire, understanding, and will with each other" (*Prolegom. to Ethics*, bk. ii. ch. ii. p. 123; cf. also Sidgwick, *Methods of Ethics*, bk. i. ch. iv.).

DESTINY (*destinatum*, fixed).—The necessary and unalterable connection of events; of which the heathens made a divine power, superior to all their deities. The idea of an irresistible *destiny*, against which man strives in vain, pervades the whole of Greek tragedy. Also *Destiny of Man*, referring to the final fulfilment of his being.—V. FATALISM.

DETERMINISM.—The theory that all our volitions are determined by the force of motives within, which motives produce their results as invariably as physical forces effect their

ends. *Determinism* is opposed not only to liberty of indifference, or the doctrine that man can determine himself without motives, but to self-determination in government of motives. Determinism is the name more recently preferred by the upholders of this theory of Will, instead of Necessitarianism (J. S. Mill's *Exam of Hamilton's Philos.*, 552). This name is applied by Hamilton (*Reid's Works*, p. 601, note) to the doctrine of Hobbes, as contradistinguished from the ancient doctrine of *fatalism*.—V. NECESSITY, FATALISM, LIBERTY.

DETERRENT.—V. PUNISHMENT.

DEVELOPMENT.—V. EVOLUTION.

DIALECTIC (διαλέγω, to distinguish; διαληκτική τέχνη, the art of picking out and combining; *Dialektik*).—Rationalised procedure within the mind, combining things in accordance with rational conditions.

“The Greek verb διαλέγεσθαι, in its widest signification—(1) includes the use both of reason and speech as proper to man. Hence, *dialectics* may mean Logic, as including the right use of reason and language. (2) It is also used as synonymous with the Latin word *disserere*, to discuss or dispute; hence, *dialectics* has been used to denote the Logic of probabilities, as opposed to the doctrine of demonstration and scientific induction. (3) It is also used in popular language to denote Logic properly so called” (Poste, *Introd. to Aristotle's Poster Analyt.*)

Diversity of usage will appear from extracts here given. Four leading senses may be distinguished—I. Platonic. II. Aristotelian. III. Kantian. IV. Hegelian.

I. *The Platonic usage originates in that of Socrates.*

“Xenophon tells us (*Mem.*, bk. iv. ch. v. sec. 12) that Socrates said—‘That *dialectic* (τὸ διαλέγεσθαι) was so called because it is an inquiry pursued by persons who take counsel together, separating the subjects considered according to their kinds (διαλέγοντας). He held accordingly that men should try to be well prepared for such a process, and should pursue it with diligence. By this means he thought they would become good men, fitted for responsible offices of command, and truly *dialectical*’ (διαλεκτικωτάτους). And this is, I conceive, the

answer to Mr Grote's complaint of the unsatisfactory nature of this account of the etymology of the word. The two notions, of investigatory dialogue and distribution of notions according to their kinds, which are thus asserted to be connected in etymology, were among the followers of Socrates, connected in fact; the *dialectic* dialogue was supposed to involve of course the *dialectic* division of the subject" (Whewell on "Plato's Notion of Dialectic," *Trans. of Camb. Phil. Soc.*, vol. ix. pt. iv.).

While Socrates was content with the reduction of ethical phenomena to their notions, Plato not only universalised the method, applying it to the whole of being, but also sought to reduce the individual notions to system, to exhibit them as a *world* of ideas. Dialectic is, according to Plato, the method of the highest or purely intellectual knowledge, in which "reason avails itself of hypotheses not as first principles, but as genuine hypotheses, that is, as stepping-stones and impulses, whereby it may force its way up to something not hypothetical, and arrive at the first principles of all things, and seize it in its grasp; which done, it turns round, and takes hold of that which takes hold of this first principle, till at last it comes to a conclusion, calling in the aid of no sensible object whatever, but simply employing abstract self-subsisting forms, and terminating in the same" (*Republic*, bk. vi. p. 511; cf. Zeller's *Plato*, pp 150 ff. and 196 ff., English transl.).

II. *Aristotelian Sense.*

Aristotle opposes *Dialectic* to *Apodeictic*:—"Dialectic, with Aristotle, is the system resulting from the attempt to reduce to rule or generalise modes of argument which rest upon current received doctrines as principles, which move within the region of interests about which current opinions *pro and con* are to be found, and which terminate not in the decisive solution of a problem, but in clearing the way for a more profound research, or at least in the establishment of the thesis as against an opponent" (Adamson, art. "Logic," *Ency. Brit.*, 9th ed.; see *Topics*, bk. i. ch. i.).

III. *Kantian Sense.*

In the terminology of Kant, *Dialectic* is a *logic of appearance* (Schein), "The logic of (false) show." Dialectic is

placed in contrast with Analytic. "General logic resolves the whole formal business of understanding and reason into its elements, and exhibits them as principles of all logical judging of our cognitions. This part of Logic may be called *Analytic*" (*Critique of Pure Reason*, Meiklejohn's transl., p. 52). "It may be taken as a safe and useful warning, that general logic, considered as an organon, must always be a logic of illusion, that is, be dialectical, for it teaches us nothing whatever respecting the content of our cognitions, but merely the formal conditions of their accordance with the understanding, which do not relate to and are quite indifferent in respect of objects. . . . For these reasons we have chosen to denominate this part of logic *Dialectic*, in the sense of a critique of dialectic illusion" (*ib.*, 53). Dialectic has thus to do with 'a natural and unavoidable illusion, which rests upon subjective principles, and imposes these upon us as objective.' This illusion 'does not cease to exist, even after it has been exposed, and its nothingness clearly perceived by means of transcendental criticism.'"

"Besides, there is a natural and unavoidable dialectic of pure reason—not that in which the bungler, from want of the requisite knowledge, involves himself, nor that which the sophist devises for the purpose of misleading, but that which is an inseparable adjunct of human reason, and which, soon after its illusions have been exposed, does not cease to deceive, and continually to lead reason into momentary errors, which it becomes necessary continually to remove" (*Critique of Pure Reason*, Meiklejohn's transl., p. 212). This *Dialectic* consists in the *transcendent* use of principles whose only legitimate use is *immanent* or *transcendental*. As transcendental, it is the exposure of the natural and unavoidable illusion that arises from human reason itself, which is ever inclined to look upon phenomena as things in themselves, and cognitions *a priori*, as properties adhering to these things, and in such way to form the supersensible, according to this assumed cognition of things in themselves."

IV. *Hegelian Sense.*

A Philosophy worked out by the dialectic or rationalising

process, embracing the concrete according to the dialectic relation of the categories. This stands in contrast with a Philosophy which starts with observation and analysis of facts, such as Inductive Psychology. The Hegelian Philosophy is a Dialectic founded on the law of the evolution of thought. It regards *Dialectic* as at once the method of knowledge and of the evolution of the universe itself. The universe is the evolution of absolute thought · knowledge is the retracing of that evolution in the thought of the individual (see *Logic of Hegel*, Wallace, pp. 125-129).

DICHOTOMY (διχοτομία, cutting in two, division into two parts, logically), is a bimembral division. It consists in taking a term and its contradictory ; and as these must, by the law of Excluded Middle, exhaust the possibilities, it is called *Exhaustive Division*.

DICTUM DE OMNI ET NULLO may be explained to mean "whatever is predicated (*i.e.*, affirmed, or denied) universally of any class of things, may be predicated in like manner (*viz.*, affirmed, or denied) of anything contained in that class" This maxim or axiom is generally considered to be the basis of syllogistic inference. According to Mill, having "the *dictum de omni* merely amounts to the identical proposition that whatever is true of certain objects is true of each of those objects. If all ratiocination were no more than the application of this maxim to particular cases, the syllogism would indeed be, what it has so often been declared to be, solemn trifling. . . . To give any real meaning to the *dictum de omni*, we must consider it not as an axiom, but as a definition ; must look upon it as intended to explain, in a circuitous and paraphrastic manner, the meaning of the word *class*" (*Logic*, bk. ii. ch. i. sec. 2).

DICTUM SIMPLICITER.—When a term or proposition is to be understood in its plain and unlimited sense, it is used *simpliciter* ; when with limitation or reference, it is said to be used *secundum quid* (*q.v.*). For the fallacy of reasoning *a dicto simpliciter ad dictum secundum quid*, and the converse, see FALLACY.

DIFFERENCE (διαφορά, *differentia*).—When two objects are compared they may have qualities which are common to both,

or the one may have qualities which the other has not. The first constitutes their *resemblance*, the second their *difference*. If the qualities constituting their resemblance be *essential* qualities, and the qualities constituting their difference be merely *accidental*, the objects are only said to be *distinct*, but if the qualities constituting their difference be *essential* qualities, then the objects are *different*. One man is *distinct* from another man, or one piece of silver from another; but a man is *different* from a horse, and gold is *different* from silver.

Those accidental differences which distinguish objects whose essence is common, belong only to individuals, and are called *individual* or *numerical differences*. Those *differences* which cause objects to have a different nature, constitute genera and species, and are called *generic* or *specific differences*. The former are passing and variable; the latter are permanent, form the objects of science, and furnish the grounds of all *classification, division, and definition*.

The *difference* is that part of the condition of the genus-term which is made the basis of its division into species,—what is naturally adapted to separate things under the same genus. Hence the rule that definition must state the proximate genus and the specific difference.—(Porphyry, *Introd. to Categor.*, ch. iii.; Aristotle, *Top.*, lib. viii. cap. 1, 2.)

“Difference or *differentia*, in Logic, means the formal or distinguishing part of the essence of a species” When I say that the *differentia* of a magnet is its “attracting iron,” and that its *property* is “polarity,” these are called respectively a *specific difference* and *property*; because magnet is (I have supposed) an *infima species* (i.e., only a species). When I say that the *differentia* of iron ore is “its containing iron,” and its *property*, “being attracted by the magnet,” these are called respectively a *generic difference* and *property*, because “iron ore” is a subaltern species or genus, being both the genus of magnet and species of mineral (Whately, *Logic*, bk. ii. ch. v. sec. 4).—Index and V. DISTINCTION.

DIFFERENTIATION.—According to the doctrine of Evolution, the law of existence is a constant and contemporaneous *Differentiation* and *Integration*, or change from a state

of Homogeneity to one of Heterogeneity, and *vice versa*. Thus from the Indefinite the Definite is evolved. Hence Spencer's definition of *Evolution*. "Evolution is an integration of matter and concomitant dissipation of motion; during which the matter passes from an indefinite incoherent homogeneity to a definite coherent heterogeneity; and during which the retained motion undergoes a parallel transformation" (*First Principles*, pt. ii. ch. xvii. sec. 145, cf. ch. xiv.-xvii.).—V. EVOLUTION.

DILEMMA is a complex syllogism, whose major premiss is a conjunctive or conditional proposition, whose minor premiss is a disjunctive proposition, and whose conclusion is either categorical or disjunctive. The dilemma takes its name from the character of the *conclusion*. If this is affirmative, the dilemma is said to be in the *modus ponens*, and is called *Constructive*; if the conclusion is negative, the dilemma is said to be in the *modus tollens*, and is called *Destructive*. If the conclusion is categorical, the dilemma is called *simple*; if the conclusion is disjunctive, the dilemma is called *complex*. There are thus three kinds of dilemmatic arguments,—the *Constructive*,—*simple* and *complex*,—and the *Destructive*, which is always *complex*. Some, as Keynes (*Formal Logic*, p. 241), say that there is also a *Simple Destructive Dilemma*.

The *dilemma* is used to prove the absurdity or falsehood of some assertion. A conditional proposition is assumed, the antecedent of which is the assertion to be disproved, while the consequent is a disjunctive proposition enumerating the suppositions on which the assertion can be true. Should the argument necessitate the rejection of the supposition, the assertion also must be rejected.

This syllogism was called the *Syllogismus Cornutus*, the two members of the consequent being the horns of the *dilemma*, on which the adversary is caught between (διαλαμβάνεται) two difficulties. And it was called *dilemma quasi dis λαμβάνων*, according to others it was so called from δῖς, twice, and λῆμμα, an assumption, because in the major premiss there are generally two antecedents, which in the minor become two assumptions.

DISCURSIVE.—Descriptive of Thought-process as opposed

to *Intuitive* knowledge. Discursive Thought is that which proceeds by comparison of notions—from reason to consequence, from premisses to conclusion. Kant distinguishes between the *discursive* understanding of man, proceeding by use of categories, and the *intuitive* understanding of God, which does not act synthetically on a *firm* material, but is *creative*, producing its own object (*Critique of Pure Reason*, Meiklejohn's transl., p. 43).

DISJUNCTIVE.—The Disjunctive *Proposition* is a statement of alternatives as predicable of the subject, as *A is either B or C*. The Disjunctive *Syllogism* has for its major premiss a disjunctive proposition, its minor premiss and conclusion being categorical. It has *two moods*, according as the conclusion is *affirmative* or *negative*, and as the minor premiss of the affirmative mood must be negative (the denial of the one alternative), and the minor premiss of the negative must be affirmative (the affirmation of the one alternative), these moods are called respectively the *modus tollendo ponens*, and the *modus ponendo tollens*.

DISPOSITION (διάθεσις, *dispositio*), literally, the act of placing things apart.—(1) “The arrangement of that which has parts, either according to place or to potentiality, or according to species” (Aristotle, *Metaphysics*, lib. iv. cap. 19). (2) Psychologically,—an inclination of our nature toward certain objects, prompting to action. (3) As applied to personality, the prevailing tendency in action. Having regard to the relation of powers and principles to one another, “Disposition” expresses bias, or tendency to be moved by some of them rather than by others.

DISSOLUTION.—The opposite of *Evolution*. “Evolution, under its simplest and most general aspect, is the integration of matter, and concomitant dissipation of motion; while Dissolution is the absorption of motion, and concomitant disintegration of matter” (Spencer, *First Principles*, pt. ii. ch. xii.).

“When Evolution has run its course, . . . the aggregate thereafter remains subject to all actions in its environment, which may increase the quantity of motion it contains, and which in the lapse of time are sure, either slowly or suddenly, to give its parts such excess of motion as will cause disintegration” (Spencer, *First Principles*, pt. ii. ch. xxiii.). According

to Spencer, the history of the universe is one of "alternate eras of Evolution and Dissolution."

DISTANCE.—The relative position of bodies in space is called their *distance* from one another.—V. SPACE, EXTERNALITY.

DISTINCT.—A concept is said to be *distinct* when its several constituent parts can be distinguished from one another; when they cannot be so distinguished, it is called *indistinct*. This use of the terms originated with Leibnitz.—V. CLEAR.

DISTINCTION (*διαφοράς*) is wider in signification than *difference*; for all things that are *different* are also *distinct*; but all things that are *distinct* are not also *different*. One drop of water does not *specifically differ* from another, but they are *individually* or numerically *distinct*.

Distinction is *real* and *mental*, *a parte rei* and *per intellectum*. *Real distinction* is founded in the nature of the thing, and amounts to *difference*. *Mental distinction* is the product of the understanding in comparing objects or qualities (Reid, *Account of Aristotle's Logic*, ch. ii. sec. 3).—V. DIFFERENCE.

DISTRIBUTION.—"In Logic, a term is said to be *distributed* when it is employed in its full extent, so as to comprehend all its significates—everything to which it is applicable" (Whately, *Logic*, index, and bk. ii. ch. iii. sec. 2). The distribution of the *subject* is always evident, as it is qualified, *e.g.*, "*All men are mortal.*" That of the *Predicate* is not obvious, as it is not quantified. But the *quantity* of the predicate is implied in the *quality* of the proposition, the predicate of *affirmative* propositions being accessarily undistributed, that of *negative* propositions distributed.—V. QUANTIFICATION OF PREDICATE.

DISTRIBUTIVE (Justice).—V. JUSTICE.

DIVISION (*divisio*, *διαφοράς*).—*Physical Division* or *Partition* is the distribution of a *substance* into its parts. *Division proper*, or *logical Division* is the distribution of *genus* and *species* into what is under them; as when *substance* is divided into *spiritual* and *material*. The members which arise from *division* retain the name of their whole, but not those from *partition*.

Logical Division is "the complete and orderly statement of the parts of the extent of a notion, or the separation of the genus into its species" (Ueberweg, *System of Logic*, p. 177, Lindsay's transl.).

In Division, the genus is resolved into its constituent species, a certain element of its content being made the basis of division. This is called the *Fundamentum Divisionis*, and must be adhered to uniformly. The confusion of different principles of division leads to the most frequent error in Division, viz., *Cross Division*, which occurs when the species are not mutually exclusive. The Division must also be *continuous* (*Divisio non faciat saltum*), i.e., the *proximate* genus must be divided into its species.

Divisions are further distinguished as *natural* and *artificial*. The latter is that founded on the "modifications of a single attribute." The former is founded on "the essential modifications of the essentially constitutive attributes. . . . It is called *Natural Division* in the same sense as the system which results from a continuous series of such divisions is to be called a natural system" (Ueberweg, *Logic*, p. 178, Lindsay's transl.).

On *Exhaustive Division*, V. DICHOTOMY.

Aristotle, *Poster. Analyt.*, lib. ii. cap. 13; Reid, *Account of Aristotle's Logic*, ch. ii. sec. 2.

DOGMA.—A formulated truth, or article of belief, regarded as apart from its evidence, or its relations as a reasoned conclusion.

DOGMATISM (δόγμα, from δοκέω, to think).—The affirmation of a principle or dogma as true, without evidence sufficient to substantiate it. "Philosophers," says Lord Bacon, "may be divided into two classes, the *empirics* and the *dogmatists*. The empiric, like the ant, is content to amass, and then consume his provisions. The dogmatist, like the spider, spins webs of which the materials are extracted from his own substance, admirable for the delicacy of their workmanship, but without solidity or use. The bee keeps a middle course—she draws her matter from flowers and gardens; then, by art peculiar to her, she labours and digests it. True philosophy does something like this" (Apophthegms, *Works*, ii. 445).

Kant defined *dogmatism*, "the presumption that we are able to attain a pure knowledge consisting of concepts and guided by principles which the reason has long had in use, without any inquiry into the *manner* or into the *right* by which it has attained them." (Preface to 2nd ed. of *Critique*, Meiklejohn, xxxviii.; Max Muller, i. 383). This inquiry he called *Criticism*, *Dogmatism* was the *uncritical* procedure of Reason. The school of philosophy which Kant had specially in view when he spoke of the *Dogmatists* was the followers of Leibnitz and Wolff.

"By *dogmatism* we understand, in general, both all propounding and all receiving of tenets, merely from habit, without thought or examination, or, in other words, upon the authority of others; in short, the very opposite of critical investigation. All assertion for which no proof is offered is *dogmatical*" (Chalybæus, *Speculative Philosophy*, p. 4).

DOUBT (*dubito*, to go two ways).—(1) Indecision, or absence of dogmatic conclusion upon a subject; (2) more positively, an affirmation that a dogmatic conclusion is unattainable.

Doubt is that state of mind in which we hesitate as to two contradictory conclusions—having no preponderance of evidence in favour of either. Philosophical *doubt* has been distinguished as *provisional* or tentative on the one hand, *definitive* or final on the other. *Definitive doubt* is *scepticism*. *Provisional* or *methodical doubt* is a voluntary suspending of judgment, in order to come more clearly to a conclusion. This was the philosophical method of Descartes, who tells us that he began by doubting everything, discharging his mind of all preconceived ideas, and admitting none as clear and true till he had subjected them to a rigorous examination, with the express object of thereby reaching the indubitable (Descartes's *Method*, pt. ii.). Hence the name *Cartesian Doubt*.

Intellectual Doubt (not arising from moral causes) is a product of the understanding itself, and is to be escaped, within the area of possible knowledge, by rigid use of the understanding, according to the laws of its own procedure (Balfour's *Defence of Philosophic Doubt*, examining the Logic of Empiricism and of Transcendentalism).—V. CERTAINTY, SCEPTICISM.

DREAMING.—The play of thought, feeling, and fancy

during physical repose in sleep. *Dreams* often take their rise and character from the physical condition, or from something in the preceding occupation of mind. Dreams are evidence of mental activity during sleep. In many cases, when originated by the physical condition, they assume the form of rationalised explanation, aided by imagination, of the sensitive condition. There is as yet no philosophy of dreaming, as a department of psychological investigation. A wide induction is needful to warrant any confidence in our conclusions. The first point to be settled is the exact difference between the waking and sleeping state. The main questions involved are these --- (1) How far is the sensory system inactive in sleep? (2) Does mental activity during sleep depend on sensory impression and association alone, or is it voluntarily sustained and directed? (3) To what extent is a rational coherence maintained in dreams? (4) How is the absurdity of association and incongruity of structure in many dreams to be accounted for? (See Hamilton, *Lects. on Metaph.*, lects. xvii. and xxxiii.; Carpenter, *Mental Physiology*, ch. xv.; Calderwood, *Mind and Brain*, ch. xiii.).

DUALISM, a theory of duality of being maintained (1) as to the origin of the world, in opposition to monotheism; (2) as to the essential difference of mind and matter in the universe, in opposition to materialism on the one hand, and absolute idealism on the other. The former usage has been the prevailing.

Dualism is the doctrine that the universe was created and is preserved by the concurrence of two principles, equally necessary, eternal, and independent.

Mythological dualism was held by Zoroaster and the Magi, who maintained the existence of a good principle and an evil principle, and thus explained the mixed state of things which prevails (Ueberweg's *Hist.*, i. 17). It would appear, however, according to Zoroaster, that both Ormuzd and Ahrimanes were subordinate to Akerenes, or the supreme Deity, and that it was only a sect of the Magi who held the doctrine of *dualism* in its naked form. Their views were revived in the second century by the Gnostics (*ib.*, i. 280), and in the third century

were supported by Manes, whose followers were called Manicheans (*ib.*, i. 290).

The term *Dualism* is also frequently used more loosely to describe theories which insist on the distinction between the Senses and the Intellect, Reason and Passion, the sensible and the cogitable worlds, the natural and the supernatural.

DUALITY of CONSCIOUSNESS is employed by Hamilton (*Metaphysics*, lect. xvi.) to denote the fact, that in perception "we are immediately conscious of an *ego* and a *non-ego*, known together and known in contrast to each other. In this act I am conscious of myself as the perceiving subject, and of an external reality as the object perceived; and I am conscious of both existences in the same indivisible moment of intuition. The knowledge of the subject does not precede nor follow the knowledge of the object—neither determines, neither is determined by the other."

DURATION.—Continuity of existence. "It is evident," says Locke, "to any one who will but observe what passes in his own mind, that there is a train of ideas which constantly succeed one another in his understanding, as long as he is awake. Reflection on these appearances of several ideas, one after another, in our minds, is that which furnishes us with the idea of succession; and the distance between any parts of that succession, or between the appearance of any two ideas in our minds, is that we call duration" (*Essay*, bk. ii. ch. xiv. sec. 3).

According to Kant, time and space are necessary forms of the human mind, which cannot perceive bodies but as existing in space, or events but as occurring in time. "They are the two pure forms of all intuition" (*Critique of Pure Reason*, Meiklejohn's transl., p. 33). "Our apprehension of the manifold in a phenomenon is always successive;" and "it is only by means of the permanent that existence in different parts of the successive series of time receives a *quantity*, which we entitle duration" (*ib.*, p. 137).—**V. TIME.**

DUTY.—Oughtness or obligedness to act in accordance with moral law. That which we *ought* to do—that which we are under *obligation* to do. It is uniform according to what

law requires and forbids ; special according to varying circumstances. Of Zeno the Stoic, it is said "that he was the first who ever employed the word duty (*καθῆκον*), and who wrote a treatise on the subject" (Diog. Lært., lib. vii.). Price (*Principal Questions of Morals*) has used *oughtness* as synonymous with *rightness*. For Kant's celebrated address to Duty, see *Kritik der Pract. Vernunft*, *Werke*, Rosen., viii. 214 ; Kant's *Ethics*, Semple's transl., 3rd ed. (Calderwood), p. 127 ; Abbot, 2nd ed., p. 256 ; Abbot, 3rd ed.—V. OBLIGATION.

A duty and *a right* are correlative. If it be the *duty* of one party to do something for another, it is the *right* of the other to expect or exact the doing of it (see Bradley, *Ethical Studies*, essays iv. and v. ; Spencer, *Data of Ethics*, p. 125).—V. RIGHT, RECTITUDE.

DYNAMIC.—Having the property of force. "Moral dynamic," a reigning motive force adequate to secure uniform fulfilment of moral law.

DYNAMICAL (*δύναμις*, power), pertaining to power as efficient.—(1) In physical science, applicable to force in all its forms. (2) Transferred to mental philosophy, and applied to the phenomena of conscious activity—(a) in intellectual philosophy by Kant, who distinguishes the categories into *mathematical* and *dynamical*,—the former being Quantity and Quality ; the latter, Relation and Modality—as concerned with correlates. "What is *mathematical* enters into and forms part of objects themselves—is *constitutive*, while what is *dynamical* only concerns relations *between* objects . . . or is only *regulative*" (Stirling, *Text-book to Kant*, p. 392). The distinction is thus virtually the same as that between *constitutive* and *regulative*, in the latter sense of that distinction (see these terms).—See *Critique of Pure Reason*, Meiklejohn's transl., pp. 67 and 134. (b) In ethical philosophy, as concerned with efficiency in fulfilment of moral law, and applied to a reigning motive force, such as reverence for law, or love to God as moral governor, voluntarily accepted and brought habitually into the field of action.

Comte designates his theory of human progress *dynamical*, as implying the three stages—the Theological, the Meta-

physical, and the Positive (see *The Positive Philosophy* of Comte, Martineau, iii. 150).

ECLECTICISM (ἐκλέγω, to select, to choose out).—Philosophic theory constructed by selection and combination from conflicting schemes of thought. The tendency to escape the conflict of thought by selection appeared among the late Peripatetics and Stoics (Ueberweg's *History*, i. 184, 188). It found favour in Alexandria and Rome. The Neo-Platonists of Alexandria professed to gather and unite into one body what was true in all systems of philosophy. To their method of philosophising, the name *eclecticism* was first applied. Clemer Alexandrinus (*Stromm*, i. 288) said:—"By philosophy I mean neither the Stoic, nor the Platonic, nor the Epicurean, nor the Aristotelian; but whatever things have been properly said by each of these sects, inculcating justice and devout knowledge,—*this whole selection I call philosophy.*" Diogenes Lærtius says (introd., sec 21) that Potamo of Alexandria introduced ἐκλεκτικὴν αἵρεσιν, "picking out of the doctrines of each school what pleased him most." It is characteristic especially of the Roman philosophers, as Cicero. Leibnitz urged that truth was more widely diffused than was commonly thought; but it was often burdened, and weakened, mutilated, and corrupted by additions which spoiled it and made it less useful. He thought there was *perennis quædam philosophia*—if it could only be disintricated from error and disinterred from the rubbish which overwhelmed it. The great advocate of *eclecticism* in modern times is Cousin. Eclecticism, in its effort to escape conflict, has commonly ended in sceptical suggestion, as involving the neglect of the criteria of truth (*V. Zeller's Philosophy of the Greeks*, Stoics, Epicureans, and Sceptics, Reiche, ii. 31).

Ueberweg's *History*,* earlier phases, i. 217 to 234; modern forms, ii. 116, 213, 482. Schweigler's *History* (Stirling, 8th ed.), earlier, p. 138. See specially Zeller's "History of Eclecticism" (*Philosophy of the Greeks*), Alleyne's transl.; Maurice Mor. and Meta. Phil.; Cousin, *Fragmentes Philosophiques*, 8vo, Paris, 1826; Jouffroy, *Mélanges Philosophiques*, 8vo, Paris 1833; *Essays*, transl. by Ripley. Damiron, *Essai sur l'Histoire de la Philosophie au dix-neuvième siècle*, 2 tom., Paris, 1834.

ECONOMICS (*οἶκος*, a house ; *νόμος*, a law).—The science of those laws which provide for increase of comfort as involved in the distribution and saving of what is produced. Treatises under this title were written by Xenophon, Aristotle, and Cicero. They seem to have treated of the best means of managing and increasing the comforts and resources of a household. Only fragments of them remain. Economics constitutes a part of Political Economy, standing distinct from the exposition of the first principles of Political Science, which part may be named The Philosophy of Politics. Economics is the division of the science concerned with the complicated inquiries as to profit and loss in production, distribution, and exchange of property or wealth (see Sidgwick, *Political Economy*, Marshall's *Economics of Industry*).

ECONOMY is used by Butler as synonymous with *system* or *constitution*. It means a *whole* composed of several *parts*, which bear certain "*relations* or *respects*" to each other (*Sermons*, Preface).

ECSTASY (*ἔκστασις*, standing out), transport of soul as if out of the body, in highly intellectual excitement. As contrasted with objective knowledge, an "inner mystical subjective exaltation" (Schwegler, *History*, Stirling, 8th ed., p. 140).

The ecstatic experience was specially claimed by the Neo-Platonists, and was represented as transcending ordinary experience, so as to rise to direct vision of God, or even identification with the Divine. Plotinus and Porphyry professed to have *ecstasies* in which they were united to God. Among Christian writers, Bonaventura (*Itinerarium Mentis in Deum*), Gerson (*Theologia Mystica*), and Francis de Sales recommend those contemplations which may lead to *ecstasy*. It is also a feature of the speculations of Eckhart and the Greek Mystics of the 14th and 15th centuries. It is considered as higher than clear thought, and as amounting to actual contact and identification with the Divine, Self-consciousness being lost in consciousness of God (see Ueberweg's *Hist.*, i. 250; Neo-Platonic Ecstasy, Schwegler, p. 139; German Mysticism, Ueberweg's *Hist.*, i. 467-484; Jacob Boehme's *Works*; Martensen's *Boehme*; Vaughan's *Hours with the Mystics*).

EDUCATION (*educo*, to lead out), the development of the bodily and mental powers. (1) Physical,—development of the body, in accordance with the laws of exercise; (2) Mental,—development of mind (*a*) by use of external observation, which may be called the *education* of Nature; (*b*) by *instruction* and *reflection*; (*c*) by *discipline*, or the formation of manners and habits (Plato, *Republic*, bk. iii. 411; Milton, *On Education*; Locke, *On Education*; Guizot, *Meditations, Conseils d'un Père sur l'Education*; Spencer, "Education—Intellectual, Moral, and Physical," *American Journal of Education*, art. "Education," *Ency. Brit.*, 9th ed.).

EFFECT.—That which results from the transference of energy or the operation of power.—*V.* CAUSE.

EFFERENT, the designation for the nerve fibres whose function it is to carry nerve energy from the nerve centre to the muscular system. These are otherwise named the "motor nerves."

EFFICIENT CAUSE.—*V.* CAUSE.

EGO,—*I*,—The **SELF**.—The conscious subject of experience.

"In English, we cannot say the *I* and the *not I*, so happily as the French *le moi* and *le non-moi*, or even the German *das Ich* and *das nicht Ich*. The *ego* and the *non-ego* are the best terms we can use; and as the expressions are scientific, it is perhaps no loss that their technical precision is guarded by their *non-vernacularity*" (Hamilton's note on Reid's *Inquiry*, ch. i. sec. 3; *Works*, p. 100).

In another note (Reid's *Works*, note B, sec. 1, p. 806), he has added:—"The *ego*, as the subject of thought and knowledge, is now commonly styled by philosophers simply the *Subject*; and *Subjective* is a familiar expression for what pertains to the mind or thinking principle. In contrast and correlation to these, the terms *Object* and *Objective* are, in like manner, now in general use to denote the *non-ego*, its affections and properties,—and in general, the *really existent* as opposed to the *ideally known*."

Kant distinguishes between the *transcendental* or objective, and the *empirical* or subjective *ego*. The latter is the object of internal sense (or introspection), the former is the universal

subject which makes all objects possible, the unity of apperception (*q.v.*) or self-consciousness, which makes possible that synthesis which is essential to knowledge, the "I think" which must be capable of accompanying all my representations. *Fichte* finds the centre and source of all existence in the *absolute Ego*, which posits itself and the non-ego, and though the three-fold process of thesis, antithesis, and synthesis creates the universe of knowledge and of moral life.

"Any one who could see quite through himself," says Lotze (*Microcosmus*, Hamilton, i. 12), "would seem to us to have come to an end of himself"

On the actualisation of the Ego see Cyples, *Powers of Human Experience*, p. 17.

EGOISM.—The theory that Self-existence is the only certainty.

Reid says (*Intellectual Powers*, essay ii. ch. viii) that some of Descartes' disciples, who doubted of everything but their own existence, and the existence of the operations and ideas of their own mind, remained at this stage of his system and got the name of *egoists*. Hamilton, in a note on the passage, "expresses his doubt about the existence of this supposed sect of *egoists*." The charge is also brought, by Stewart and others, against the philosophy of Berkeley as its logical consequence.

Stewart (*Dissertation*, pt. i. ch. ii.) says that the name of *Egoists* was applied to those followers of Descartes who concluded from his doubt that no man can have full assurance of anything but of his own individual existence.

In Ethics, Egoism is used to characterise the theory that all human impulses are essentially self-regarding. Hobbes' theory is the type of such. Spencer opposes it to *Altruism* (*q.v.*, *Data of Ethics*); cf. Sidgwick, *Method of Ethics*, bk. ii.

For the discussion of *Egoism* as an ethic principle, see Sidgwick, *Methods of Ethics*, bk. ii.; Spencer, *Data of Ethics*, ch. xi.-xiv.

EJECT.—A term used by Clifford, and distinguished by him from *object*. On the Berkleian theory of perception, objects are constructed by the individual mind which knows them, *i.e.*, are merely ideas, therefore essentially passive objects. But we

are conscious also of other persons, *i.e.*, not mere passive objects, but spiritual agents like ourselves. Clifford makes this necessary distinction, and applies the term *eject* to objects of knowledge, recognised as conscious agents like ourselves, as distinguished from other (and, in the strict sense, *mere*) objects.

ELABORATIVE FACULTY.—One of Hamilton's subdivisions of the Cognitive Faculties; the Faculty of *Comparison* or *Relations*. The faculty constitutes, according to Hamilton, "what is properly denominated *Thought*. It supposes always at least two terms, and its act results in a judgment, that is, an affirmation or rejection of one of the terms of the other" (*Metaph.*, lects. xxxiv.—xxxvii.).

ELECTION (*eligo*, to choose).—(1) Voluntary choice among objects presented, or means at our command; (2) Volition, or exercise of Will, in direction of conduct; (3) Theologically, the exercise of Divine sovereignty in the government of the world.

ELEMENT (*στοιχείον*).—(1) An original constituent of material existence; (2) more generally, an inherent property of an object; (3) an essential part of a question under discussion. Under the first we have the usage involved in the ancient "Elemental Philosophies." The philosopher who first taught the existence of four elements—earth, air, fire, and water—was Empedocles. Before him, the Ionic philosophers, Thales, Anaximander, Anaximenes, may be said to have postulated an elementary form of existence—water, the infinite, air. After Empedocles, Leucippus and Democritus returned to the view of the qualitative identity of the original material.

"We call that elementary which in a composition cannot be divided into heterogeneous parts—thus the *elements* of sound constitute sound, and the last parts into which you divide it—parts which you cannot divide into other sounds of a different kind. The last parts into which bodies can be divided; parts which cannot be divided into parts of a different kind are the *elements* of bodies. The *elements* of every being are its constitutive principle" (Aristotle, *Metaph.*, lib. iv. ch. iii.). "As for the word element (*στοιχείον*), it designates the case in which one thing is the primitive matter which constitutes another thing" (Aristotle, *Metaph.*, lib. x. ch. i.).

The Stoic definition of an element is, "that out of which, as their first principle, things generated are made, and into which, all things are resolved at last" (Diog. Lært., vii. 69).

ELEMENTOLOGY.—*V. METHODOLOGY, LOGIC.*

ELIMINATION (*elimino*, to throw out).—The extrusion of that which is superfluous or irrelevant. By the successive *elimination* or *exclusion* of the possible alternatives, we may argue to the only remaining alternative as necessarily true. In *Symbolic Logic* the term has a special signification, viz., the striking out of equal quantities, as in Algebra. Venn (*Symbolic Logic*) has a chapter on Elimination.

EMANATION (*emano*, to flow from) —According to several systems of philosophy and religion which have prevailed in the East, all the beings of which the universe is composed, whether body or spirit, have proceeded from, and are parts of, the Divine Being or substance. This doctrine of *emanation* is to be found in the systems of Zoroaster, the Gnostics, and Neo-Platonists. In so far as it identifies the universe with God, it is essentially pantheistic; but it is a conception of the relation between these which is accepted by only some pantheists.

EMINENTER.—A scholastic term adopted by Descartes. A cause is said to contain its effect either *formaliter* or *eminenter*. "If the perfection of the effect be contained in the cause *in the same mode* in which it exists in the effect, the reality of the effect is said to be in the cause *formally*. On the other hand, if the effect be contained in the cause, not as it is in itself, or according to its intrinsic form, essence, or proper definition, but *in a higher grade or mode of perfection*, it is said to be in its cause *eminently*. A cause containing *eminently* thus contains all the reality of the effect more perfectly than the effect itself. This distinction has an important application, in the philosophy of Descartes, to the question of the proof of the existence of God through his idea" (*cf. Med. iii., Veitch, Descartes, app., note 7*).

EMOTION (*emoveo*, to move out), (1) often synonymous with feeling; (2) generally, the intenser forms of feeling; (3) a distinct order of feeling, indicative of disturbance within, and giving rise to agitation of the physical frame. Its effect

may be to restrain or even paralyse energy. The chief emotions are Wonder, Fear, Grief. Strictly taken, it means "a state of feeling which, while it does not spring directly from an affection of body, manifests its existence and character by some sensible effect upon the body."

Emotion implies knowledge. Considered in themselves, *emotions* can scarcely be called springs of action. They tend rather, while they last, to fix attention on the objects or occurrences which have excited them. In many instances, however, *emotions* are succeeded by desires, inclining us either to obtain possession of objects, or to remove ourselves from the presence of objects. When an *emotion* is thus succeeded by some degree of desire, it forms, according to Lord Kames, a *passion*, becoming a powerful and permanent spring of action (see Chalmers, *Sketches of Mental and Moral Philosophy*, p. 88). Regarded as "Natural Restraints" upon action (Calderwood's *Handbook of Moral Philosophy*, p. 161).

EMPIRIC, EMPIRICISM.—(1) In medical usage, depending on experience to the neglect of science; (2) depending on the facts of experience as the prerequisites for science; (3) a theory (*a*) of knowledge or (*b*) of practice, which regards experience as the sole criterion of truth. Its theory of knowledge derives all from sensation; its moral philosophy depends wholly upon association of feelings. "Among the Greek physicians there arose a sect who, professing to employ experience alone to the exclusion of generalisation, analogy, and reasoning, denominated themselves distinctively *empirics*, (*οἱ ἐμπειρικοί*), the Empirics, as opposed to *theorists* (*μεθοδικοί*), and to *dogmatists* (*δογματικοί*)" (Hamilton's *Metaph.*, i. 54, lect. iii.).

Empiricism, allowing nothing to be true or certain but what is given by experience, rejects all knowledge *à priori*.

The earliest form of Empiricism or Sensationalism is the philosophy of Heraclitus, whose watchword is *πάντα ῥεῖ*, universal flux. Nothing is, but all things are *becoming*. See its refutation in Plato's *Theætetus*. In that dialogue the teaching of Heraclitus is shown to be only the objective counterpart of that of Protagoras, who identified knowledge with sensation and proclaimed that man was the measure of all things.

thus providing a philosophical foundation for the teaching of the Sophists as to the relativity of human knowledge. In Socrates and Plato we see the revolt from this standpoint to that of extreme Idealism.

Aristotle, on the other hand, is an empiricist in so far as he returns to experience ; but he finds in experience the realisation of the ideal or formal, the concrete unity of form and matter.

In the *Middle Ages* empiricism was found only among the physicians and alchemists, and was not the badge of any school of philosophy.

The founder of *modern* empiricism is Locke, who traces all knowledge to experience, ἐμπειρία. Experience, according to him, included sensation and reflection. The French philosophers of the 18th century, Condillac and others, rejected reflection as a distinct source of knowledge, and pushed the sensationalistic side of Locke's philosophy to an extreme. To distinguish it from that of Locke, their doctrine is called *Ideology* (*q.v.*). They hold that "knowledge consists entirely of sensations remembered or generalised, which they call *ideas*. In England, the sensationalism of Locke was developed by Berkeley and Hume. The former resolved our knowledge of matter into sensations and combinations of sensations ; and the latter, applying the same method to our knowledge of mind, found himself unable to escape universal scepticism. He was answered by the Scottish philosophy of *Common Sense* on the one hand (*q.v.*), according to which the mind has primary beliefs or first principles, which are the ground of all knowledge and experience ; and by the *Critical* philosophy of Kant (*q.v.*) on the other, which finds in experience elements of knowledge which are not of experience—not its result or product, but rather its presupposition and explanation.

EMULATION (*emulus*, a rival), the desire of superiority. It is one of those primitive desires which manifest themselves in very early years. It prompts, when properly directed and regulated, to the most strenuous and persevering exertion. Its influence is great in the carrying forward of education.

END.—(1) The contemplated result of activity ; (2) more

generally, the actual result. According to Aristotle, ends are of two kinds—*ἐνέργειαι*, operations; *ἔργα*, productions. An *ἐνέργεια* is the end, when the object of a man's acting is the pleasure or advantage in being so employed, as in music, dancing, contemplation, &c., which produce nothing, generally speaking, beyond the pleasure which the act affords. An *ἔργον* is something which is produced beyond the operation or energy (*Eth.*, lib. i. cap. i.). The conception of end is also prominent in Aristotle's *Metaphysics*. The *τέλος*, or final cause, is in thought the beginning, though it is the end or result of the evolution of existence.

An *end*, in the primary sense, is that for the sake of which an action is done. Hence it has been said to be *principium in intentione et terminus in executione*.

Ends have been distinguished, as *supreme* and *ultimate*, or *subordinate* and *intermediate*. That which is sought for its own sake is the *supreme* and *ultimate end* of those actions which are done with a view to it. That which is sought for the sake of some other end is a *subordinate* and *intermediate end*.

See Edwards, *Dissertation concerning the End for which God created the World*; Cicero, *De Finibus Bonorum et Malorum*; Janet's *Final Causes*.—V. CAUSE (FINAL).

END-IN-HIMSELF.—Kant maintains that human nature is an *end-in-itself*—in other words, as personality involves freedom of will placed in subjection to moral law, it follows that the perfection of human nature is an end-in-itself. (The dignity of human nature is such that man is never to use himself as merely a means to an end, or to use his fellow-man as such, as if a man were only a working machine). "Man and every reasonable agent exists as an end-in-himself, and not as a mere mean or instrument to be employed by any will whatever, not even by his own, but must in every action regard his existence, and that of every other intelligence, as an end-in-itself" (*Kritik der Praktischen Vernunft*; *Werke*, Rosenkranz, viii. 56; Semple's transl., Calderwood, 3rd ed., p. 41; Abbott, 3rd ed., p. 46). Accordingly, man, as moral agent, belongs to a *kingdom of ends*. "By a kingdom I understand the union of different rational beings in a system by common

laws." "All rational beings come under the *law*, and each of them must treat itself and all others *never merely as means*, but in every case *at the same time as ends in themselves*" ("Metaphysic of Morals," Kant's *Theory of Ethics*, Abbott, 3rd ed., pp. 51, 52).

ENERGY (ἐνέργεια, as distinguished from δύναμις), power operating. These two are placed in contrast by Aristotle (*N. Ethics*, bk. ii. ch. i.). Power (δύναμις) is regarded by him as latent, a possession within the mind which may not be brought into action; whereas energy is the activity of the power, for the accomplishment of an approved end; and this activity is, according to the laws of our nature, the method for establishing ethical habit. In modern usage, under physical science, Energy is applied to power capable of doing work, and stands in contrast with matter.

ENTELECHY (ἐντελέχεια, ἐντελής, perfect; ἔχειν, to have; and τέλος, an end).—Complete attainment; actuality, distinctness of realised existence. E. Wallace (*Psychology of Aristotle*, introd., p. xlii.) defines the *Entelechy* of Aristotle as "the realisation which contains the end (τέλος) of a process; the complete expression of some function—the perfection of some phenomenon, the last stage in the process from potentiality to reality." It is in this sense that the Soul is called by Aristotle the ἐντελέχεια of body—"its perfect realisation or full development." "Frequently, it is true," says Mr Wallace, "Aristotle fails to draw any strict line of distinction between *entelechy* and *energy*; but, in theory at least, the two are definitely separated from each other, and ἐνέργεια represents merely a stage on the path towards ἐντελέχεια."

Aristotle further distinguishes between a *first* and *second* Entelechy. The former is the *implicit*,* the latter, the *actual* realisation. It is in the former sense that the soul is the Entelechy of body—ψυχή ἐστὶν ἐντελέχεια ἡ πρώτη σώματος φυσικοῦ δυνάμει ζῶντι ἔχοντος (*De Animá*, lib. ii. cap. i. sec. 6).

"*Entelechy* is the opposite to *potentiality*, yet would be ill translated by that which we often oppose to potentiality, *actuality*. Εἶδος expresses the substance of each thing viewed in repose—its form or constitution; ἐνέργεια its substance, con-

sidered as active and generative; ἐντελέχεια seems to be the synthesis or harmony of these two ideas" (Maurice, *Mor. and Metaph. Phil.*).

ENTHUSIASM (ὁ θεὸς ἐν ῥήμῳ).—(1) Inspiration; (2) fulness of ardour; (3) sometimes, in an evil sense, ill-regulated excitement of feeling.

The word occurs both in Plato and Aristotle. According to its composition, it should signify "divine inspiration." But it is applied in general to any extraordinary excitement or exaltation of mind. The raptures of the poet, the deep meditations of the philosopher, the heroism of the warrior, the devotion of the martyr, and the ardour of the patriot, are so many different phases of *enthusiasm* (More, *Enthusiasmus Triumphatus*; Casaubon, *A Treatise concerning Enthusiasm*; Locke, *Essay on Human Understanding*, bk. iv. ch. xix.; Shaftesbury, *Of Enthusiasm*, Hume, *Essays on Superstition and Enthusiasm*, *Natural History of Enthusiasm*, by Isaac Taylor).

ENTHYMEME (ἐν θύμῳ, in the mind), is an irregular syllogism, in which one of the premisses is unexpressed, but kept in mind; as "every animal is a substance, therefore, every man is a substance;" in which the premiss, "man is an animal," is suppressed. This, however, is not the Aristotelian meaning of the term. According to him, it is a "rhetorical syllogism," "of which the premisses are maxims generally true (εἰκότα), or facts which indicate the existence of some other fact (σημεῖα): and which, as generally understood, would be left unstated" (Wallace, *Outlines of Philosophy of Aristotle*, p. 44; see *Anal. Pr.*, ii. 26, 70–72) Aristotle's *Syllogism* was an inference in matter necessary; his *Enthymeme* was an inference in matter probable (Bachmann) (cf. Hamilton, *Reid's Works*, p. 704, note).•

ENTITY (*entitas*).—(1) Being; (2) in the scholastic philosophy, synonymous with Essence.

To all individuals of a species there is something in common—a nature which transiently invests all, but belongs exclusively to none. This essence, taken by itself and viewed apart from any individual, was what the scholastics called an *entity*. Animals had their *entity*, which was called *animality*. Men

had their *entity*, which was called *humanity*. It thus denoted the common nature of the individuals of a species or genus. It was the idea or model according to which they are conceived. The question whether there was a reality corresponding to this idea divided philosophers into *Nominalists* and *Realists* (*q.v.*), the former denying, the latter maintaining, the objective existence of the essence of *entity*.

ENVIRONMENT.—Surroundings, the whole circumstances bearing on the activity of a living being, including outward position, relations, and all the influences which come upon the being *ab extra*, tending to produce change of experience, and to modify nature, in a manner which may be transmitted under a law of heredity.

“The changes or processes displayed by a living body are specially related to the changes and processes in its environment. . . . The life of the organism will be short or long, low or high, according to the extent to which changes in the environment are met by corresponding changes in the organism” (Spencer’s *Principles of Biology*, see Lotze, *Microcosmus*, i. 19, 136, Eng. transl.).

ENVY.—Feeling of uneasiness and displeasure at the prosperity of another (see Butler, *Sermons*, i.).

EPICHEIREMA (ἐπιχειρέω, to put one’s hand to a thing), an attempted proof—is a syllogism confirmed in its major or minor premiss, or in both, by an incidental proposition. This proposition, with the premiss to which it is attached, forms an enthymeme or imperfectly expressed syllogism. The *incidental* proposition is the *expressed premiss* of the enthymeme, and the premiss to which it is attached is the *conclusion*, e.g., “covetousness is sin, for it is a transgression.”

EPICUREANISM.—The philosophy of Epicurus and his followers. Epicurus was born in Samos, 341 or 342 B.C. He came to Athens about 306 B.C, and taught philosophy there for more than thirty years, his disciples being gathered in his own garden, afterwards bequeathed to his followers for a meeting-place. His name is specially associated with the doctrine that pleasure is the chief good (Diog. Laert., bk. x.). His school thus stood out as antagonistic to the Stoics, these two

being historically the parting of two streams of thought, represented still in the Utilitarian and Rational Theories of morals. The Stoics and Epicureans separate and select different tendencies appearing in the Aristotelian Ethics, the Stoics taking the true meaning of Aristotle, and placing in prominence the warning that we are most prone to be led astray by pleasure; the Epicureans taking, in their most general sense, the earlier statements of Aristotle, that happiness is that which all seek after.

The leading Epicureans in Athens were Metrodorus, Polyænus, Hermarchus, and Apollodorus. The school gained considerable influence at a later period in Rome.

The teaching of Epicurus included the criteria of truth, natural science, and ethics. The criteria of truth are "the senses, the preconceptions, and the passions." He distinguishes between opinion and certainty, urging that we ought to judge of things obscure by analogy with those directly perceived. Under natural science he taught that the world is infinite, that atoms are the source of all, and that all atoms are endowed with equal power of movement, by means of which existence is necessarily determined. Everything which men said about the gods he regarded as fallacious. In ethics he maintains that pleasure is the chief good, holding that this is proved by the fact that all animals, from the moment of their birth, are delighted with pleasure and offended with pain. By pleasure he means "the freedom of the body from pain, and of the soul from confusion." "Every pleasure is a good on account of its own nature, but it does not follow that every pleasure is worthy of being chosen." "The beginning and greatest good of all these things is prudence, . . . teaching us that it is not possible to live pleasantly unless we also live prudently and honourably and justly." But he adds, "we choose the virtues for the sake of pleasure, as we seek the skill of the physician for the sake of health" (see Diog. Laert., bk. x.; Zeller, *Stoics, Epicureans, and Sceptics*, Eng. transl., Reichel, ch. xv. p. 382; Guyan, *La Morale d'Epicure*; W. Wallace, *Epicureanism*).

EPISTEMOLOGY (λόγος τῆς ἐπιστήμης, the science of

true *knowing*)—"the doctrine or theory of knowing, just as *Ontology* is the doctrine or theory of *being*" (Ferrier, *Inst. of Metaph.*, p. 46).

EPISYLLLOGISM.—In a chain of reasoning, or *Sorites* (*q.v.*), the individual syllogisms into which it may be resolved are called respectively *pro-syllogisms* and *epi-syllogisms*, according as they are considered as inferences from earlier, or as premisses of later syllogisms.

EQUANIMITY, a balanced self-regulation of life.

EQUATION, correlation of equals.—This is one view of the nature of *Judgment* (*q.v.*) (see Jevons, *Substitution of Similars*; Venn, *Symbolic Logic*).

EQUIPOLLENCE — *V.* **PERMUTATION**.

EQUITY (ἐπιείκεια or τὸ ἴσον, as distinguished from τὸ νομικόν).—That which determines the equal between man and man, in view (1) of natural rights, (2) of voluntary contract. It is described by Aristotle (*Ethics*, bk. v. ch. x) as that kind of justice which corrects the irregularities or rigours of strict legal justice. All written laws must necessarily speak in general terms, and must leave particular cases to the discretion of the parties.

"*Equity*, in its true and genuine meaning, is synonymous with natural justice, and to this the judge must have recourse where the laws are silent, and there is nothing else to guide his decision" (Lord Mackenzie, *On Roman Law*; cf. Maine, *Ancient Law*).

EQUIVOCAL (*æque vocare*), applied to a vocable, or proposition bearing a double meaning.

An *Equivocal*, or ambiguous term in Logic, is one which has more than one signification, each of its significations being *equally* applicable to several objects (Whately, *Logic*, bk. iii. sec. 10; Watt's *Logic*, ch. iv.; Locke's *Essays*, bk. iii. ch. ix. and x).

EQUIVOCATION, the act of deliberately using language in a double sense with the view of deceiving.

In morals, to *equivocate* is wilfully to offend against the truth, by using language of double meaning in such a way as to be misunderstood, or to favour misunderstanding.

ERROR.—Deviation (1) from fact in observation, (2) from the laws of Logic in reasoning. *Error* is not a fault of our knowledge, but a mistake of our judgment, giving assent to that which is not true (see Locke, *Essay on Human Understanding*, bk. iv. ch. xx.).

ESOTERIC, opposed to **EXOTERIC** (ἐσωθεν, within; ἔξω, without).—(1) Secret or hidden doctrine, communicated only to the initiated, exoteric being doctrine publicly taught; (2) scientific teaching, in contrast with more popular, which is exoteric. “The philosophy of the Pythagoreans, like that of the other sects, was divided into the *exoteric* and the *esoteric*; the open, taught to all; and the secret, taught to a select number” (Warburton, *Div. Leg.*).

According to Origen, Aulus Gellius, Porphyry, and Jamblichus, the distinction of *esoteric* and *exoteric* among the Pythagoreans was applied to the disciples—according to the degree of initiation to which they had attained, being fully admitted into the society, or being merely postulants (Ritter, *History of Ancient Philosophy*, i. 342).

Plato is said to have had doctrines which he taught publicly to all—and other doctrines which he taught only to the few. There is no allusion to such a distinction of doctrines in the writings of Plato. Aristotle (*Phys.*, lib. iv. cap. ii) speaks of opinions of Plato which were not written. But it does not follow that these were secret—Ἐν τοῖς λεγομένοις ἀγράφοις δόγμασιν. They may have been oral.

Aristotle speaks of some of his writings as *exoteric*; and others as acroamatic, or *esoteric*. The former treat of the same subjects as the latter, but in a popular and elementary way, while the *esoteric* are more scientific in their form and matter.

In modern literature the terms are used in this last sense. A technical or scientific statement is said to be *esoteric*, a popular one *exoteric*. Still, the older sense is implicitly retained, esoteric teaching being synonymous with confidential and thorough presentation of belief, exoteric with accommodation to the view generally accepted.

Ravaisson, *Essai sur la Métaphysique d'Aristote*; Tucker, *Light of Nature*, vol. ii. ch. ii.; Sir A. Grant's *Aristotle's Ethics*,

app. B, 3rd ed., i. 397 ; Blakesly, *Life of Aristotle*.—V. ACROAMATICAL.

ESSENCE (*essentia*, from *essens*, the old participle of *esse*, to be), Being, as it is distinguished by necessary properties, apart from accidental.

The Greeks had but one word for *essence* and substance, viz., οὐσία. The word ὑπόστασις was latterly introduced. Hence it is difficult to determine what exactly was Aristotle's doctrine of Essence. It was the perfect form, the notion of the thing itself—τὸ τί ἦν εἶναι—its τέλος, which was only realised in the final result. Aristotle's doctrine of Essence is broadly distinguished from Plato's by the former's insistence on the *imminence* of the form or essence in the matter of the actual phenomenon, as opposed to the *transcendence* of the Platonic Idea, its existence apart from and independent of the sensible appearance.

In the scholastic philosophy a distinction began to be established between *essence* and *substance*. *Substance* was applied to the abstract notion of matter—the undetermined subject or substratum of all possible forms, τὸ ὑποκείμενον ; *Essence* to the qualities expressed in the definition of a thing, or those ideas which represent the genus and species. Descartes defined *substance* as "that which exists so that it needs nothing but itself to exist"—(*Princ. Phil.*, par. 4, sec. 1)—a definition applicable to Deity only. *Essence* he stripped of its logical significance, making it the foundation of all those qualities and modes which we perceive in matter. Among the attributes of every substance there is one only which deserves the name of *essence*, and on which the others depend as modifications—as extension, in matter, and thought, in mind. He thus identified *essence* and *substance*. With Leibnitz *essence* and *substance* were the same, viz., force or power. Spinoza defines *Essence* as "that which being given, the thing is necessarily given, and which being wanting, the thing necessarily ceases to exist ; or that without which the thing, and which itself without the thing, can neither exist nor be conceived" (*Eth.*, pt. ii. def. 2). And *attribute* he defines as "that which the mind perceives of substance as constituting its essence "

(*Eth.*, pt. i. def. 4); the two attributes actually perceived of the one substance being, as with Descartes, Thought and Extension.

According to Locke, "*essence* may be taken for the very being of anything, whereby it is what it is" (*Essay on Human Understanding*, bk. iii. ch. iii. sec. 15). Locke distinguishes the *real* and the *nominal essence*. The nominal essence depends upon the real essence; thus the *nominal* essence of gold is that complex idea which the word "gold" represents, viz. "a body yellow, heavy, malleable, fusible, and fixed;" but its *real* essence is the constitution of its insensible parts, on which these qualities and all its other properties depend, which is wholly unknown to us (see *Essay*, bk. iii. ch. iii. sec. 15 ff.).

Kant, like previous philosophers, distinguishes between the *Essence* or *Thing-in-itself* and its *appearance*. Hegel denies that this is an ultimate distinction, maintaining the identity of Essence and Appearance, Noumenon and Phenomenon. By the logic of *essence* Hegel means the exposition of the categories of the finite world of relations, such as substance and accident, cause and effect, content and form.

"It is important to remark the change of meaning which this word has undergone in its transmission from the ancient to the modern schools of philosophy. Formerly the word 'essence' (*οὐσία*) meant that part or characteristic of anything which threw an intellectual illumination over all the rest of it. . . . Nowadays it means exactly the reverse. . . . The 'essence' is the point of darkness, the assumed element in all things which is inaccessible to thought or observation" (Ferreir's *Instit. c. Metaph.*, p. 249).

ETERNITY.—Infinite Duration, without beginning and without end, characteristic of the Divine existence. Our conception of Eternity implies a present existence, of which neither beginning nor end can be affirmed. The schoolmen spoke of *eternity*, *a parte ante*, and *a parte post* (q.v.). The *Scotists* maintained that *eternity* is made up of successive parts which drop, so to speak, one from another. The *Thomists* held that it is simple duration, excluding the past and the future. Plato said, time is the moving shadow of *eternity*. So Spinoza:—*In æterno non datur quando, nec ante, nec post*

On man's conception of *eternity*, see Locke, *Essay on Human Understanding*, bk. ii. ch. xiv.; and xxviii. sec. 15; Mansel's *Examination of Mr Maurice's Theory of a Fixed State out of Time*, and the whole discussion as to knowledge of the Infinite.

ETERNITY OF GOD'S EXISTENCE.—*Deus non est duratio vel spatium, sed durat et adest.* This scholium of Sir Isaac Newton contains the germ of Clarke's *Demonstration of the Being of God*. Time and space are qualities, and imply a substance. We cannot think of them as not existing. And as we think of them as infinite, they are the infinite qualities of an infinite substance, that is, of God, necessarily existing.

"To exist in time is the same thing as to exist imperfectly. God, in the language of Plotinus, is necessarily *ἄχρονος*, timeless" (Jules Simon, *Hist. de l'Ecole d'Alexandrie*, pref.). (Cf. Kant's arguments in the *Æsthetic*, where he demonstrates the subjectivity of space and time, thus avoiding the error, otherwise, as he thinks, unavoidable, of attributing to the Divine intuition the conditions of space and time (see *Critique of Pure Reason*, p. 43, Meiklejohn; suppl. xi., Max Muller, i. 421).

ETHICS—(1) Synonymous with "Moral Philosophy," the philosophy of the right in conduct. According to Kant, a philosophy of "the laws of freedom," in contrast with "the laws of nature." (2) According to etymological usage (*ἠθικά*, from *ἔθος*, custom) the term applies to that department of moral science which treats of practice as tested by moral law.

Aristotle (*N. Eth.*, lib. ii.) says that *ἠθος*, which signifies moral virtue, is derived from *ἔθος*, custom; since it is by repeated acts that virtue, which is a moral habit, is acquired. Cicero (*De Fato*, lib. ii.), says, *Quia pertinet ad mores quod ἠθος illi vocant, nos eam partem philosophice, De moribus, appellare solemus; sed decet augentem linguam Latinam nominare Moralem.*

"Ethics extend to the investigation of those principles by which *moral* men are governed; they explore the nature and excellency of virtue, the nature of *moral* obligation, on what it is founded, and what are the proper motives of practice" (Cogan, *On Passions*, introd.; Calderwood's *Handbook of Moral Philosophy*; Potter's *Elements of Moral Science*; on modes of stating

the problems, Sorley's *Ethics of Naturalism*, ch. i.; Sidgwick's *Outlines of the History of Ethics*.

ETHNOGRAPHY, ETHNOLOGY (ἔθνος, a tribe or nation, and (a) γράφω,—(b) λόγος).—“*Ethnography* embraces the descriptive details, and *Ethnology* the rational exposition of the human aggregates and organisations known as hordes, clans, tribes, and nations, especially in the earlier, the savage and barbarous, stages of their progress. Both belong to the general science of *Anthropology*, or the natural history of mankind, being related to it as parts to a whole” (art. “*Ethnography*,” in *Ency. Brit.*, 9th ed.; see Spencer's *Descriptive Sociology*; *Ethnological Journal*).—V. ANTHROPOLOGY.

EUDÆMONISM (εὐδαιμονία, happiness), that system of moral philosophy which makes happiness the test of rectitude. On the common basis of the agreeable or desirable, there are two forms of Ethical Theory, (1) the Hedonistic (ἡδονή, pleasure, *voluptas* of the Latins), which makes personal pleasure the law of life, and is known as Egoistic Hedonism; (2) the Eudæmonistic (or Eudaimonistic) which makes general happiness the test, termed also Altruistic Hedonism, and Utilitarianism, its maxim being “the greatest happiness of the greatest number.”

Bentham, the original expounder of the Greatest Happiness theory, considers “Happiness” not always appropriate, because it “represents pleasure in too elevated a shape” to include the whole requirements of life (*Deontology*, 1. 78).

In ancient philosophy the term is applicable to the philosophy of the Cyrenaics and Epicureans. Its modern upholders are Hobbes, who is Egoistic, whereas the more recent thinkers take the Altruistic form of the theory,—Bentham, Hume, James Mill, J. S. Mill,—who introduces difference of quality in pleasure,—Bain, Sidgwick.

Hobbes' *Leviathan*; Bentham's *Introduction to the Principles of Morals and Legislation*, and his *Deontology*; Hume's *Inquiry*; Mill's *Fragment on Mackintosh*; J. S. Mill's *Utilitarianism*; Bain's *Emotion and Will* and *Moral Science*; Sidgwick's *Methods of Ethics*.

For criticism of this philosophy, see Kant's *Ethics*, Semple

or Abbott, Grote's *Exam. of Utilit. Phil.*; M'Cosh's *Exam. of Mill's Phil.*, Lorimer's *Institutes of Law*, Calderwood's *Handbook of Moral Philosophy*.

Kant's criticism is stated thus :—"The principle of happiness may, indeed, furnish maxims, but never such as would be competent to be laws of the will, even if universal happiness were made the object. For, since the knowledge of this rests on mere empirical data, since every man's judgment of it depends on his own particular point of view, which is itself, moreover, very variable, it can supply only *general* rules, not *universal*" (*Analytic of Practical Reason*; Abbot's *Kant's Theory of Ethics*, p. 125).

EVIDENCE (*e* and *video*, to see), the ground or reason of knowledge, the light by which the mind apprehends things, whether immediately or mediately. *Fulgor quidam mentis assensum rapiens*. It is used (1) comprehensively as synonymous with *Proof*, and so equivalent to reasoning or inference in general, both deductive and inductive. Thus Mill calls his *Logic* "a connected view of the Principles of *Evidence*." (2) It is restricted to that branch of Proof called *Testimony*, either *direct*, from witnesses; or *circumstantial*, from concomitant facts (see Locke, *Essay*, bk. iv. ch. xv.; Butler, *Analogy*, introd.; Glassford, *Essay on Principles of Evidence*; Campbell, *Philosophy of Rhetoric*, bk. i., Gambier, *On Moral Evidence*, Sir G. C. Lewis, *On Authority in Matters of Opinion*).—V. TESTIMONY.

EVIL is the negation or the contrary of good. It is (1) physical, (2) moral, (3) metaphysical. In its physical application, that which injures; in its ethical, that which violates moral law; in its metaphysical, imperfection or lack of power.

Physical evil consists in pain or suffering.

Moral evil originates in the will of the agent, who could not have been capable of moral good without being liable to moral evil, a power to do right being, *ex necessitate rei*, a power to do wrong.

Metaphysical evil is the absence or defect of powers and capacities, and the consequent want of the higher attainment which might have followed the full and perfect possession of them. It arises from the necessarily limited nature of all

created beings. Some would resolve these into one another, e.g., *moral evil* into *physical* or *metaphysical*.

"Every man calleth that which *pleaseth* and is delightful to himself, good; and that *evil* which *displeaseth* him" (Hobbes, *Human Nature*, ch. vii. sec. 3).

"The voluntary application of this natural good and evil to any rational being, or the production of it by a rational being, is *moral good and evil*" (King, *Essay on Origin of Evil*).

"*Metaphysical evil* consists simply in imperfection, *physical evil* in suffering, and *moral evil* in sin" (Leibnitz, *On Goodness of God*).

EVIL, ORIGIN OF.—The theories concerning the *origin of evil* have been very varied—(1) the doctrine of pre-existence, or that the *evils* we are here suffering are punishments or expiations of moral delinquencies in a former state of existence; (2) the doctrine of the Manicheans, which supposes two co-eternal and independent agencies, the one the author of good, and the other of *evil*; (3) the doctrine of optimism, that *evil* is part of a system conducted by Almighty power, under the direction of infinite wisdom and goodness (Stewart, *Active and Moral Powers*, bk. iii. ch. iii. sec. 1); (4) the doctrine of human liberty; (5) the doctrine of Pantheism, that Evil is mere negation, the necessary concomitant of finite existence (Spinoza and Hegel), (6) the doctrine of Pessimism, that existence as such is necessarily evil (Schopenhauer and Von Hartmann).

On the origin of *evil*, its nature, extent, uses, &c., see Plato, *Timæus* and *Gorgias*, Aristotle, *Metaph.*, i. 6; Cicero, *De Finibus*, Seneca, Malebranche and Fenelon, Clarke and Leibnitz; King, J. Müller.

EVOLUTION,—progress of being by development from within, under external conditions conducive to advance. (1) **ORGANIC** or **BIOLOGICAL EVOLUTION** implies (*a*) development of varieties within the same species, either by natural selection, under altered external conditions, or by artificial intervention under care of man; (*b*) according to Darwin, development of species under the varying conditions already named. (2) **DIALECTIC EVOLUTION**, according to Hegel, is (*a*) unfolding of

consciousness, (b) unfolding of the universe as a whole, in accordance with the logical relations of the categories of the understanding.

The Theory of BIOLOGICAL EVOLUTION, in its most advanced type, seeks to complete a systematic history of life from its rise to its highest form, inclusive of man as an intellectual and moral being. This is the breadth of range contemplated by Darwin and by Herbert Spencer, the former having given special attention to scientific observation as concerned with relations of the lower species, the latter having devoted large attention to the possibilities of mental evolution.

Darwin's theory may be summarised thus :—Given one or more primordial germs, the history of life must be determined by the external conditions under which it has subsisted. Observation should, therefore, be directed on the laws affecting organic history, and on the evidence, supplied by structure, of the relation of distinct forms of animal life. The laws mainly applicable are the following :—(1) "The struggle for existence," on account of limited supply of food, in accordance with which the strongest gain the best, and, as a consequence, there is "survival of the fittest", (2) adaptation to environment, in accordance with which the varying conditions of existence lead to variation in organic form ; (3) hereditary transmission, securing the continuance in successive generations of adaptation of organism to environment. After external conditions comes evidence from organic structure, showing that all organism is built up on a common system, and that higher orders, in their embryonic stages of development, pass through the forms belonging to lower organisms (Darwin's *Origin of Species*; *Descent of Man*; Alf. Russell Wallace, *Natural Selection*, Ernest Hackel's *General Morphology*).

Spencer's definition of Evolution is as follows :—"Evolution is an integration of matter and concomitant dissipation of motion ; during which the matter passes from an indefinite incoherent homogeneity to a definite coherent heterogeneity ; and during which the retained motion undergoes a parallel transformation" (*First Principles*, pt. ii. ch. xvii. p. 396) This is, according to Spencer, the universal Law of existence. "There are

not several kinds of Evolution, having certain traits in common, but one Evolution going on everywhere after the same manner. While any whole is evolving, there is always going on an evolution of the parts into which it divides itself this equally holds of the totality of things, as made up of parts within parts from the greatest down to the smallest. So understood, Evolution becomes not one in principle only, but one in fact. There are not many metamorphoses similarly carried on ; but there is a single metamorphosis universally progressing, wherever the reverse metamorphosis has not set in. In any locality, great or small, throughout space, where the occupying matter acquires an appreciable individuality, or distinguishableness from other matter, there Evolution goes on ; or rather, the acquirement of this appreciable individuality is the commencement of Evolution. And this holds uniformly ; regardless of the size of the aggregate, regardless of its inclusion in other aggregates, and regardless of the wider evolutions within which its own is comprehended " (*First Principles*, pt. ii. ch. xxiv. sec. 188, pp. 545-7).

According to *Hegel*, DIALECTIC, or the Evolution of the Idea, is the law at once of thought and of existence. This is the inevitable "onward movement" of the Notion, according to which all distinctions are gradually subsumed in an ever higher and fuller unity, till at last there stands out "the organisation of thought pure and entire, as a whole, and in all its details. This organism of thought, as the living reality or gist of the external world and the world within us, is termed the Idea" (Wallace, *Logic of Hegel, Proleg.*, p. 174). Thus "the Idea" "realises itself, as the absolute reason which is in the world—which is in that world its absolute signification. . . . The Absolute Idea is the process which produces itself ; and to trace that process is the problem of Logic" (*ib.*, p. 171).

For Evolution as concerned with Ethics, see Comte, *Philosophie Positive*, Martineau, ii. 148 ; Spencer, *Data of Ethics*, pp. 12-20 ; Wake, *Evolution of Morality* ; Simcox, *Natural Law*).

EXAMPLE.—V. ANALOGY, INSTANCE.

EXCEPTION.—A case not recognised as covered by ordinary law. Science can admit no absolute *exception* to law ;

its constant task is to show that apparent exceptions are in reality cases of higher laws.

EXCLUDED MIDDLE (Principle, Law, or Axiom of) *Principium exclusi medii inter duo contradictoria*.—"By the principle of 'Contradiction' we are forbidden to think that two contradictory attributes can both be present in the same object; by the principle of 'Excluded Middle' we are forbidden to think that both can be absent. The first tells us that both differentiae must be compatible with the genus: I cannot, for example, divide animal into animate and inanimate. The second tells us that one or the other must be found in every member of the genus" (Mansel, *Prolegom. Logica*, ch. vi. p. 208).

The formula of this principle is—"Everything is either A or not A: everything is either a given thing, or something which is not that given thing" That there is no mean between two contradictory propositions is proved by Aristotle (*Metaphysics*, bk. iii. ch. vii.). "So that if we think a judgment true, we must abandon its contradictory; if false, the contradictory must be accepted" (see Thomson, *Laws of Thought*, pt. iv. sec. 114). The truth of this axiom has been strenuously attacked by Hegel in particular. He maintains that all existence being a development, the truth lies in neither of the contradictories, but in their union. Ueberweg, in defence of the axiom, says that the attack arises from a confusion of *contrary* with *contradictory* (see his *System of Logic*, pp. 263 ff., Lindsay's transl.). Mill also contends that, "between the true and the false there is always a third possibility—the unmeaning" (see his *Examination of Hamilton's Philosophy*, p. 473, 3rd ed.).

EXISTENCE (*exsisto*, to stand out)—Being.

Existence and Essence.—According to Spinoza, the essence of God implies *existence*. In this he follows Anselm and Descartes. The latter finds the existence of a Perfect Being "comprised in the idea, in the same way that the equality of its three angles to two right angles is comprised in the idea of a triangle," and that, "consequently, it is at least as certain that God, who is this Perfect Being, is, or exists, as

any demonstration of Geometry can be" (*Method*, pt. iv.). This view is open to Kant's criticism of the *Ontological* proof of the existence of God (*Critique of Pure Reason*, Transc. Dialectic, ch. iii sec. 4, pp. 364 ff., Meiklejohn's transl.).

EXOTERIC.—V. ESOTERIC.

EXPEDIENCY,—Dictate of Prudence. A wise regard to results in the use of competent means for legitimate ends.

Expediency is a word much used by the advocates of the doctrine of Utility. Paley has said, Whatever is *expedient* is *right*. Whewell (*Elements of Morality*, bk. ii. ch. xxv.) says:—"The main significance of such assertions is in the rejection which they imply of any independent and fundamental meaning in the term *right*. . . . In the common use of language, we speak of actions as *expedient* when they promote some end which we have selected, and which we do not intend to have questioned."

EXPERIENCE (*ἐμπειρία*, *experientia*).—(1) The knowledge involved in the present facts of consciousness; (2) *à posteriori* knowledge, in contrast with *à priori*; (3) accumulated knowledge concerning the general conditions of life and effort. According to Aristotle (*Analyt. Poster.*, ii. 19), from sense comes memory, but from repeated remembrance of the same thing we get *experience*. Similarly, Bacon and Spinoza characterise our ordinary unsystematic sense-knowledge as *experientia vaga*. In this wide sense *Experience* may be said to be coextensive with the contents of consciousness.

"*Experience*, in its strict sense, applies to what has occurred within a person's own knowledge. *Experience*, in this sense of course, relates to the past alone. . . . More frequently the word is used to denote that judgment which is derived from *experience in the primary sense*, by reasoning from that in combination with other data." This gives "*conclusions from experience*. It is in this sense only that *experience* can be applied to the *future*, or to any *general fact*; as, *e.g.*, when it is said that we know *by experience* that water exposed to a certain temperature will freeze" (Whately, *Logic*, app. i.).

In recent times the term has acquired a more precise meaning, which dates from the attempt of Kant, in answer to the

empiricism of Locke and the scepticism of Hume, to supply a Philosophy of Experience (*Erfahrung*).

Locke (*Essay on Human Understanding*, bk. ii. ch. i.) assigned *experience* as the only and universal source of human knowledge. "Whence hath the mind all the materials of reason and knowledge? To this I answer in one word, from *experience*, in that all our knowledge is founded, and from that ultimately derives itself. Our observation, employed either about external sensible objects, or about the internal operations of our minds, perceived and reflected on by ourselves, is that which supplies our understanding with all the materials of thinking. These are the fountains of knowledge from whence all the ideas we have, or can naturally have, do spring—that is, sensation and reflection."

Hume agreed with Locke in thus tracing all knowledge to experience. All *Ideas*, he says, may be resolved into corresponding *Impressions*. The idea of *necessary connection*, e.g., may be resolved into that of *constant conjunction* in experience, and the association bred by custom between impressions so conjoined.

Hume's account was, however, confessedly inadequate. "All my hopes," he said, "vanish when I come to explain the principles that unite our successive perceptions in our thought or consciousness" (*Treatise on Human Nature*, Green & Grose's ed., i. 559). These words exactly define Kant's problem, viz., to reach a rational explanation of experience by disengaging the *à priori* or formal elements on which its possibility depends.—V. CATEGORY, APPERCEPTION.

The doctrine opposed to pure Experientialism is, that man has knowledge *à priori*—knowledge which *experience* cannot give, and without which there could be no *experience*—upon which all generalisations of *experience* proceed and rest.

"That all our knowledge *begins with* experience there can be no doubt. . . . But . . . it by no means follows that all *arises out of* experience. . . . It is therefore a question which requires close investigation, and is not to be answered at first sight, whether there exists a knowledge altogether independent of experience, and even of all sensuous impressions?

Knowledge of this kind is called *à priori*, in contradistinction to empirical knowledge, which has its sources *à posteriori*, that is, in experience" (Kant's *Kritik of Pure Reason*, introd., Meiklejohn's transl., p. 1). "Experience is an empirical cognition; that is to say, a cognition which determines an object by means of perceptions. It is therefore a synthesis of perceptions, a synthesis which is not itself contained in perception, but which contains the synthetical unity of the manifold of perception in a consciousness" (*ib.*, p. 132).

The scientific attitude towards experience is thus described by Sir John Herschel ("On the Study of Natural Philosophy," *Lardner's Cyclopædia*):—"The great, and indeed the only ultimate source of our knowledge of nature and its laws is *experience*; by which we mean not the *experience* of one man only, or of one generation, but the accumulated *experience* of all mankind in all ages, registered in books, or recorded by tradition. But *experience* may be acquired in two ways: either, first, by noticing facts as they occur, without any attempt to influence the frequency of their occurrence, or to vary the circumstances under which they occur; this is *observation*. or secondly, by putting in action causes and agents over which we have control, and purposely varying their combinations, and noticing what effects take place; this is *experiment*. To these two sources we must look as the fountains of all natural science."—V. Cyples, *Process of Human Experience*.

Experience (Analogies of).—V. ANALOGY.

EXPERIMENT.—Voluntary application of tests for the discovery of truth. Herschel has distinguished Observation and Experience as *passive* and *active observation*.

In *experiment* we do not passively observe Nature, but we *interrogate* her (Bacon). "Reason must approach nature with the view, indeed, of receiving information from it, not, however, in the character of a pupil, who listens to all that his master chooses to tell him, but in that of a judge, who compels the witnesses to reply to those questions which he himself thinks fit to propose" (Kant, *Critique of Pure Reason*, pref. to 2nd ed., p. xxvii., Meiklejohn's transl.). "For the purpose of *varying the circumstances* (Bacon), we may have recourse

(according to a distinction commonly made) either to observation or to experiment; we may either *find* an instance in nature suited to our purposes, or, by an artificial arrangement of circumstances, *make one*" (Mill, *Logic*, bk. iii. ch. vii. sec. 2). "When, as in astronomy, we endeavour to ascertain causes by simply watching their effects, we *observe*; when, as in our laboratories, we interfere arbitrarily with the causes or circumstances of a phenomenon, we are said to *experiment*" (Thomson and Tait's *Natural Philosophy*, vol. i. sec. 369). Observation proceeds from effect to cause. experiment from cause to effect. Some sciences are most observational, as Astronomy, others are more experimental, as Chemistry. But the two methods run into one another; and the distinction between them is one rather of degree than of kind.—V. EXPERIENCE.—[J. S.]

EXPERIMENTUM CRUCIS.—A crucial or decisive experiment in attempting to interpret the laws of nature; so called, by Bacon, from the crosses or way-posts used to point out roads, because they determine at once between two or more possible conclusions.

A and B, two different causes, may produce a certain number of similar effects; find some effect which the one produces and the other does not, and this will point out, as the direction post (*crux*), at a point where two highways meet, which of these causes may have been in operation in any particular instance. Thus, many of the symptoms of the Oriental plague are common to other diseases; but when the observer discovers the peculiar bubo or boil of the complaint, he has an *instantia crucis* which directs him immediately to its discovery. The *experimentum crucis* is specially common in experimental sciences like chemistry. But *crucial instances* may also be discovered by mere observation.

Bacon (*Nov. Org.*, bk. ii. sec. 36) says:—"Crucial instances are of this kind; when in inquiry into any nature the intellect is put into a sort of equilibrium, so that it is uncertain to which of two, or sometimes more natures, the cause of the nature inquired into ought to be attributed or assigned, on account of the frequent and ordinary concurrence of more natures than one; the *instances of the cross* show that the

union of the one nature with the nature sought for is faithful and indissoluble; while that of the other is varied and separable; whence the question is limited, and that first nature received as the cause, and the other sent off and rejected."

EXPLANATION.—The accounting for phenomena (1) *scientifically*, by bringing them under their *laws*; (2) *philosophically*, by the reduction of lower laws to ultimate Law, or by the exhibition of the principles or presuppositions which underlie the procedure of scientific as well as of ordinary thought.—[J. S.]

EXPLICATIVE.—A designation applied by Kant to judgments, equivalent to ANALYTIC (*q.v.*).

EXPLICIT.—Opposed to *Implicit*: equivalent to *Actual* (*q.v.*)

EXTENSION (*extendo*, to stretch from).

(1) **Extension (Physical)** is that essential property of matter by which it occupies space; it implies length, breadth and thickness, without which no material substance can exist but it has no respect to the size or shape of a body. According to the Cartesians, *extension* was the essence of matter, as *thought* was the essence of mind (*res extensa* and *res cogitans*). So Spinoza made Thought and Extension the attributes of the one Substance. According to Locke, it is one of the *primary qualities* of matter. Berkeley resolved it, with the other primary qualities of Locke, into sensation. Kant, in his doctrine of Space, makes it subjective or phenomenal.

"The notions acquired by the sense of touch, and by the movement of the body, compared with what is learnt by the eye, make up the idea expressed by the word *extension*' (Taylor, *Elements of Thought*).

See Locke, *Essay on Human Understanding*, bk. ii. ch. xiii., see also ch. xv.; Reid, *Inquiry*, ch. v. secs. 5, 6; *Intellectual Powers*, essay ii. ch. xix.; Hobbes, *Phil. Prima*, pars ii. cap. viii. sec. 1, Kant, *Critique of Pure Reason*, *Æsthetic*.

(2) **Extension (Logical)**, when predicated as belonging to a general term, means the number of objects included under it. *Intension* or *comprehension* means the common characters belonging to such objects.

"I call the *comprehension* of an idea, those attributes which it involves in itself, and which cannot be taken away from it

without destroying it ; as the *comprehension* of the idea triangle includes extension, figure, three lines, three angles, and the equality of these three angles to two right angles, &c.

"I call the *extension* of an idea those subjects to which that idea applies, which are also called the inferiors of a general term, which, in relation to them, is called superior, as the idea of triangle in general extends to all the different sorts of triangles" (*Port. Roy. Logic*).

We cannot detach any properties from a notion without extending the list of objects to which it is applied. Thus, if we abstract from a rose its essential qualities, attending only to those which it connotes as a plant, we *extend* its application, before limited to flowers with red petals, to the oak, fir, &c. On the other hand, as we narrow the sphere of a notion, the qualities which it *comprehends* increase. If we restrict the term body to animal, we include life and sensation—if to man, it *comprehends* reason.

Thus emerges the law of the reciprocal relation of the extension and intension of terms, viz., that the increase of the one implies the decrease of the other, and *vice versâ*.

EXTERNALITY or OUTNESS.—Separateness from self, as applied to all that is known as distinct from the knower.

According to Berkeley, "Distance or *outness* is neither immediately of itself perceived by sight, nor yet apprehended or judged of by lines and angles, or anything that hath a necessary connection with it : but is only *suggested* to our thoughts," by certain visible ideas and sensations attending vision, which in their own nature have no manner of similitude or relation, either with distance, or things placed at a distance. But, by a connection taught us by *experience*, they come to signify and suggest them to us, after the same manner that *words* of any language suggest the ideas they are made to stand for" (*Principles of Knowledge*, pt. i. sec. 43; cf. *Dialogue on Divine Visual Language* and *Essay towards a New Theory of Vision*). On the theory of externality, V. SPACE and PERCEPTION.

FACT.—(1) Strictly, that which is done or accomplished ; (2) more widely, that which is known as existing.

"By a matter of *fact*, I understand anything of which we

obtain a conviction from our internal consciousness, or an individual event or phenomenon which is the object of sensation" (Sir G. C. Lewis, *Essay on Influence of Authority*).

It is opposed (1) to *opinion* (*q.v.*). "By a *matter of fact*, in ordinary usage, is meant something which might, *conceivably*, be submitted to the *senses*; and about which it is supposed there could be no disagreement among persons who should be *present*, and to whose senses it should be submitted; and by a *matter of opinion* is understood anything respecting which an exercise of *judgment* would be called for on the part of those who should have certain objects before them, and who might *conceivably* disagree in their judgment thereupon" (Whately, *Rhetoric*).

It is thus opposed (2) to *matter of inference*. Thus, the destructiveness of cholera is *matter of fact*, the mode of its propagation is *matter of inference*. *Matter of fact* also denotes what is certain, as opposed to *matter of doubt*. The existence of God is *matter of fact*, though ascertained by reasoning.

It is thus often opposed (3) to *theory*. "The distinction of *fact* and *theory* is only relative. Events and phenomena, considered as particulars which may be colligated by induction, are *facts*; considered as generalities already obtained by colligation of other *facts*, they are *theories*. The same event or phenomenon is a *fact* or a *theory*, according as it is considered as standing on one side or the other of the inductive bracket" (Whewell, *Phil. Induct. Sci.*).

"*Theories* which are true, are *facts*" (Whewell, *On Induction*).—V. OPINION, APPEARANCE.

FACTITIOUS (*factito*, to practise), the result of human work or art, as distinguished from a product of nature.

Descartes calls those ideas *factitious* which are the product of imagination, as opposed to *innate* and *adventitious* (*q.v.*)

FACULTY.—A distinct power of the mind, by the action of which a distinct order of mental phenomena is produced. The correlative designation is *capacity*,—the capability of being influenced or moved under the action of thought, or by external objects.

"The word *faculty* is most properly applied to those powers of the mind which are original and natural, and which make

part of the constitution of the mind" (Reid, *Intellectual Powers*, essay i. ch. 1.).

Instead of blind and fatal activity, let the being who has power be conscious of it, and be able to exercise and regulate it; this is what is meant by *faculty*. It implies intelligence and freedom. It is personality which gives the character of *faculties* to those natural powers which belong to us (*Dict. des Sci. Phil.*).

We say the *faculty* of judging, but the *power* of habit. But, as all our faculties are powers, we can apply the latter term equally to what is original and to what is acquired. And we can say, with equal propriety, the *power* of judging and the *power* of habit. Taking into account the distinction of powers as active and passive, "these terms," says Hamilton (*Reid's Works*, p. 221), "stand in the following relations. *Powers are active and passive, natural and acquired.* Powers natural and active are called *faculties*. Powers natural and passive, *capacities* or *receptivities*. Powers acquired are *habits*, and habit is used both in an active and in a passive sense. The power, again, of acquiring a habit is called a *disposition*." "Faculty (*facultas*) is derived from the obsolete Latin *facul*, the more ancient form of *facilis*, from which again *facilitas* is formed. It is properly limited to active power, and, therefore, is abusively applied to the mere passive affections of mind" (Hamilton, *Metaph.*, lect. x.).

When we classify the operations of the mind, assigning them to different powers, we do not suppose the mind divided, or regard the faculties as separate entities or agents. The energy is the same in all the operations, the mind only acting in different relations according to different conditions and laws.

This is well put by Alcuin, the friend and adviser of Charlemagne, in the following passage in his work *De Ratione Animæ*.—"The soul bears divers names according to the nature of its operations; inasmuch as it lives and makes live, it is the soul (*anima*); inasmuch as it contemplates, it is the spirit (*spiritus*); inasmuch as it feels, it is sentiment (*sensus*); since it reflects, it is thought (*animus*); as it comprehends, intelligence (*mens*); inasmuch as it discerns, reason (*ratio*); as

it consents, will (*voluntas*) ; as it recollects, memory (*memoria*) But these things are not divided in substance as in name, for all this is the soul, and one soul only" (*cf.* Locke, *Essay on Human Understanding*, bk. ii. ch. xxi. secs. 17, 20).

Strong objections have been offered against the representation that mental operations, such as reasoning, willing, and recollecting, are to be assigned to distinct faculties or powers of mind, in recognition of the diversity of the mental exercise involved. The allegations are, that the reference to faculties has led to an artificial classification of phenomena, and this to an unnatural mode of viewing the relations of mental phenomena, inasmuch as phenomena do not occur singly and in succession, but simultaneously in the same state of consciousness, in accordance with rational law. There is obvious truth in the objection, and great practical force in it, as fitted to guard against an artificial and mechanical treatment of mental phenomena. Reference to faculties is peculiarly alien to theories of evolution, whether biological or dialectic. The hazard is at once recognised when the synthesis of consciousness becomes a leading phase of the philosophic problem. All competent treatment of the phenomena of consciousness, therefore, recognises the unsuitableness of a dogmatic reference to faculties, and the special risk of error when it assumes an analogical form, suggested by organism. The general recognition of this danger will appear from the following extracts:—

"It would be well if, instead of speaking of 'the powers (or faculties) of the mind' (which causes misunderstanding), we adhered to the designation of the several 'operations of one mind,' which most psychologists recommend, but in the sequel forget" (Feuchtersleben, *Medical Psychol.*).

"Man is sometimes in a predominant state of intelligence sometimes in a predominant state of feeling, and sometimes in a predominant state of action and determination. To call these however, *separate faculties*, is altogether beside the mark. No act of intelligence can be performed without the will, no act of determination without the intellect, and no act either of the one or the other without some amount of feeling being mingled in the process. Thus, whilst they each have their own distinct

tive characteristics, yet there is a perfect unity at the root" (Morell, *Psychology*).

"The judgment is often spoken of as if it were a distinct power or *faculty* of the soul, differing from the imagination, the memory, &c., as the heart differs from the lungs, or the brain from the stomach. All that ought to be understood by these modes of expression is, that the mind sometimes compares objects or notions; sometimes joins together images; sometimes has the feeling of past time with an idea now present," &c. (Taylor, *Elements of Thought*).

"Notwithstanding we divide the soul into several powers and *faculties*, there is no such division in the soul itself, since it is the whole soul that remembers, understands, wills, or imagines" (*Spretator*, No. 600).

"The expression, 'man perceives, and remembers, and imagines, and reasons,' denotes all that is conveyed by the longer phrase, 'the mind of man has the *faculties* of perception, and memory, and imagination, and reasoning'" (S. Bailey, *Letters on Philosophy of the Human Mind*).

Kant, in distinguishing between empirical psychology and rational psychology, or doctrine of the soul apart from any empirical element, which he regards as impossible (*cf Critique of Pure Reason*, Meiklejohn, pp. 81 and 237), makes thought—the "I think"—the vehicle of all conceptions, and thus far discountenances the doctrine of special faculties, while constantly alluding to the faculties of the soul. Hutchison Stirling, in his "Reproduction," puts Kant's position thus:—"The cognitive faculty is judgment, or judgment is but another name for the intellectual faculty, for thought, for the mind itself" (*Text-Book to Kant*, p. 30; see Lotze, *Microcosmus*, i. 169-175, Eng. transl.).

Herbart, treating the mind as simple essence, denounced the attempted explanation of phenomena by special faculties, regarding the so-called faculties as hypostatised class-conceptions (Ueberweg's *Hist.*, Morris, ii. 278).

The controversy as to faculties involves three points of consideration:—(1) Explanation of results of analysis, as these present diversity in mental phenomena; (2) exposition of a

true synthesis of consciousness ; (3) the harmony of these two as correlative in philosophic procedure (Mansel's *Proleg. Logic*, 2nd ed., p. 38 ; Martineau's *Types of Ethical Theory*, ii. 10).

Faculties of the Mind (Classification of).—The faculties of the human mind were formerly distinguished as gnostic or cognitive, and orectic or appetent. They have also been regarded as belonging to the understanding or to the will, and have been designated as intellectual or as active. A threefold classification of them, proposed by Kant, is now generally adopted, reducing them to the heads of intellect or cognition, of sensitivity or feeling, and of activity or will. Under each of these heads, again, it is common to speak of several subordinate *faculties*.

The greatest importance attaches to the classification of the cognitive powers, as distinct from each other, yet essentially related, making account of lower and higher powers concerned in knowledge as an organised whole. "By experiments of sense we become acquainted with the lower faculties of the soul ; and from them, whether by a gradual evolution or ascent, we arrive at the highest. Sense supplies images to memory ; these become objects for fancy to work upon. Reason considers and judges of the imaginations, and these acts of reason become new objects to the understanding. In this scale, each lower faculty is a step that leads to one above it" (Berkeley, *Siris*, sec. 303 ; Fraser's *Selections*, 2nd ed., p. 331). Kant treats of the intellectual powers under the threefold division—the Sensory, the Understanding or Reasoning Power, and the Reason, named Pure Reason.

FAITH.—V. BELIEF.

Faith has two distinct but closely related senses—(1) *Belief*, holding for true and real ; (2) Confidence, trust in a statement, a principle, or a person. The second of these senses necessarily includes the first, but the first may exist without the second. We may firmly believe a thing to be true, in which there may be no need, not even a possibility, for the exercise of trust or confidence. But that in which we confide, we must, first of all, necessarily hold to be true (Young, *Province of Reason*). The philosophic vindication of Faith is that proof of the impossibility

of comprehending all things in a reasoned system of knowledge (see Fraser's *Berkeley* in *Philosophical Classics*, Blackwood, pp. 213 ff.).

FALLACY (A) is an *apparent* argument, professing to decide the matter at issue, while it really does not. Fallacies were arranged by Aristotle in two classes—according as the *fallacy* lay in the *form*, *in dictione*; or in the *matter*, *extra dictionem*. They have been variously arranged by subsequent logicians, but, in the main, Aristotle's classification has been generally adopted. Fallacy may occur in either *Deductive* or *Inductive* inference. In the former, it may be (1) formal or (2) material.

I. Fallacies in *Deduction*:—

(1) *Formal* or strictly logical. (a) Those arising from the breach of any of the rules of syllogism, as *Illicit Major* or *Undistributed Middle*. (b) Those which do not directly break any syllogistic rule, and therefore may be called *semi-logical*. The *fallacies*, in form or expression, are the following:—

Fallacia Æquivocationis, arising from the use of an equivocal word; as, the dog is an animal; Sirius is the dog; therefore Sirius is an animal.

Fallacia Amphiboliæ, arising from doubtful construction; *quod tangitur a Socrate illud sentit; columna tangitur a Socrate; ergo columna sentit*. In the major proposition *sentit* means "Socrates feels." In the conclusion, it means "feels Socrates."

Fallacia Compositionis, when what is proposed in a *divided* sense, is afterwards taken collectively: as, two and three are even and odd; five is two and three; therefore five is even and odd.

Fallacia Divisionis, when what is proposed in a *collective*, is afterwards taken in a *divided* sense; as, the planets are seven; Mercury and Venus are planets; therefore Mercury and Venus are seven.

Fallacia Accentus, when the same thing is predicated of different terms, if they be only written or pronounced in the same way, *e.g.*, the commandment, "Thou shalt not bear false witness against thy neighbour," may be made

by a slight emphasis of the voice on the last word to imply that we are at liberty to bear false witness against other persons (Jevons, *Logic*, p. 174).

Fallacia Figuræ Dictionis, when, from any similitude between two words, what is granted of one is, by a forced application, predicated of another; as, projectors are unfit to be trusted; this man has formed a project, therefore this man is unfit to be trusted.

(2) *Material fallacies, or fallacies extra dictionem*.—

Fallacia Accidentis, when what is *accidental* is confounded with what is *essential*. This fallacy occurs generally in the application of general rules to particular cases, where the peculiarity of the given case invalidates the application, *e.g.*, the following argument against capital punishment:—We are forbidden to kill; using capital punishment is killing; we are forbidden to use capital punishment. The *converse fallacy of accident* occurs when we argue from a particular case (ignoring its peculiarity) to a general rule, *e.g.*, the argument that because excessive physical exercise is injurious therefore physical exercise in itself is injurious.

These two fallacies are sometimes termed respectively, *a dicto simpliciter ad dictum secundum quid* and *a dicto secundum quid ad dictum simpliciter*.

Fallacia a Dicto Secundum quid ad Dictum Simpliciter, when a term is used in one premiss in a limited, and in the other in an unlimited sense; as, the Ethiopian is *white as to his teeth*; therefore he is *white*. The converse *a dicto simpliciter ad dictum secundum quid* is also fallacious—Whatever gives pain should be abstained from; therefore surgical operations should be abstained from.

Fallacia Ignorationis Elenchi, or *Irrelevant Conclusion* (literally, ignorance of the refutation), is when the point in dispute is intentionally or ignorantly overlooked, and the conclusion is therefore irrelevant. The principal forms of it are:—

1. Mistaking the question or the point at issue, as when the *existence* of the external world is proved against

Berkeley, who did not *deny* its existence, but put forward a theory of the *nature* of that existence.

2. Imputing consequences, or the constructive sophism; as, "Phrenology leads to Materialism, therefore it is not true."

3. Introduction of rhetorical expedients, as irony, personalities, appeals to the passions, &c. Such are the *argumenta ad hominem, ad populum, &c.* (*q.v.*), where, instead of reasoned statement, there are appeals to the character of those who hold the views attacked, to feeling instead of to reason.

Fallacia Petitionis Principii (begging the question), when that is taken for granted which ought to have been proved: as, when a thing is *proved by itself*, "he is a man, therefore he is a man," or by a *synonym*: as, "a sabre is sharp, therefore a scimitar is;" or by *anything equally unknown*: as, Paradise was in Armenia, therefore, Gihon is an Asiatic river; or by *anything more unknown*; as, "this square is twice the size of this triangle, because equal to this circle;" or by *reasoning in a circle*, *i.e.*, when the disputant tries to prove reciprocally conclusion from premises, and premises from conclusion; as, "fire is hot, therefore it burns;" and afterwards, "fire burns, therefore it is hot;" "the stars twinkle, therefore they are distant;" "the stars are distant, therefore they twinkle." This fallacy generally occurs in a lengthened argument, and is called *argument in a circle*. It may occur, however, in a single *proposition*, *e.g.*, *circulus in definiendo*, where a term is defined by its synonym; or even in a single *term* or *Question-begging Epithet*, as *innovation*, a term which, to the minds of many, implies the idea of wrongness, and therefore, when applied to any proposal, is sufficient without argument to condemn it.

Mill maintains that, "in every syllogism, considered as an argument to prove the conclusion, there is a *petitio principii*. When we say, *All men are mortal, Socrates is a man, therefore Socrates is mortal*; it is unreasonably urged by the adversaries of the syllogistic theory, that

the proposition *Socrates is mortal* is presupposed in the more general assumption, *All men are mortal*, that we cannot be assured of the mortality of all men, unless we are already certain of the mortality of every individual man, that, in short, no reasoning from generals to particulars can, as such, prove anything, since from a general principle we cannot infer any particulars but those which the principle itself assumes as known" (*Logic*, bk. ii. ch. iii. sec. 2).

Fallacia a non Causa pro Causa, appears in the following forms:—(1) *Non vera pro vera*; as, when Descartes explains sensation by animal spirits, the existence of which is not ascertained. (2) *Non talis pro tali*; as, when the Norwegians attributed the disappearance of the fish from their coast to the introduction of inoculation. (3) *Post hoc ergo propter hoc*, when accidental antecedence and subsequence are regarded as cause and effect, e.g., the superstition of sailors that it is unlucky to start on a Friday, because such starts have been followed by accidents.

Fallacia Plurium Interrogationum, when two or more questions, requiring each a separate answer, are proposed as one, so that if *one* answer be given, it must be inapplicable to *one* of the particulars asked; as, "was Pisistratus the usurper and scourge of Athens?" The answer "no" would be false of the former particular, and "yes" would be false of the latter. The *fallacy* is overthrown by giving to each particular a separate reply. It is the *Fallacia Compositionis* in an interrogative form.

II. Fallacies of *Induction*. These are classified by Fowler as follows:—

- (a) Fallacies incident to the subsidiary processes—(1) Fallacy of non-observation; (2) of mal-observation; (3) errors in Classification, Nomenclature, Terminology, and Hypothesis.
- (b) Fallacies incident to the Inductive process itself, or Fallacies of Generalisation—(1) *Inductio per Enumerationem simplicem*; (2) Errors common to the employment of the various Inductive Methods; (3) False Analogy.

On Fallacies of *Deduction* see the ordinary logical text-books, especially Whately's *Logic*; on *Inductive Fallacies*, Fowler's *Inductive Logic*, ch. vi.; for Mill's account of Fallacies, see his *Logic*, bk. v.

FALSE, FALSITY.—Want of harmony between statement and reality. *Falsity*, like *Truth*, is applied only to Judgments, and generally has a *moral* reference; *error* being the term applied to a purely *intellectual* divergence between statement and reality.

FAMILY (The).—Ethics investigates the duty of man in all the relations of life—those of the Family, Society, and the State. Of these the primary relation, presupposed in all the others, is that of the *Family*. Its consideration embraces that of the marriage relation, the relations of parents and children,—the ethical basis of social life.

FANCY (*φαντασία*).—"Imagination or *phantasy*, in its most extensive meaning, is the faculty *representative* of the phenomena both of the external and internal worlds" (Hamilton, *Reid's Works*, note B, secs. 1, 9).

"How various soever the pictures of *fancy*, the materials, according to some, are all derived from sense; so that the maxim—*Nihil est in intellectu nisi prius fuerit in sensu*—though not true of the intellect, holds with regard to the *phantasy*" (Monboddo, *Ancient Metaphysics*).

Fancy is sometimes distinguished from *Imagination*, as by Stewart, who says (*Elements*, ch. v.; *Works*, Hamilton's ed., ii. 259), "It is obvious that a creative imagination, when a person possesses it so habitually that it may be regarded as forming one of the characteristics of his genius, implies a power of summoning up, at pleasure, a particular class of ideas; and of ideas related to each other in a particular manner; which power can be the result only of certain habits of association which the individual has acquired. It is to this power of the mind, which is evidently a particular turn of thought, and not one of the common principles of our nature," that Stewart would appropriate the name *fancy*. "The office of this power is to collect materials for the imagination; and therefore the latter power presupposes the former,

while the former does not necessarily suppose the latter. A man whose habits of association present to him, for illustrating or embellishing a subject, a number of resembling or analogous ideas, we call a man of *fancy*, but for an effort of imagination various other powers are necessary, particularly the powers of taste and judgment; without which we can hope to produce nothing that will be a source of pleasure to others. It is the power of *fancy* which supplies the poet with metaphorical language, and with all the analogies which are the foundation of his allusions: but it is the power of imagination that creates the complex scenes he describes, and the fictitious characters he delineates. To *fancy* we apply the epithets of rich or luxuriant; to imagination, those of beautiful or sublime."

Fancy was called by Coleridge "the aggregative and associative power." But Wordsworth says:—"To aggregate and to associate, to evoke and to combine, belong as well to *imagination* as to *fancy*. But *fancy* does not require that the materials which she makes use of should be susceptible of change in their constitution from her touch; and, where they admit of modification, it is enough for her purpose if it be slight, limited, and evanescent. Directly the reverse of these are the desires and demands of the *imagination*. She recoils from everything but the plastic, the pliant, and the indefinite" (Wordsworth, Preface to *Works*). Mr Sully says (*Outlines of Psychology*, p. 304, note):—"The contrast between *passive* and *active* imagination appears to correspond to one aspect of the ill-defined and much-discussed distinction between *Fancy* and *Imagination*."—V. IMAGINATION.

FATALISM.—The doctrine that all human actions are inevitably determined in the sequence of events. "*Fatum* is derived from *fari*; that is, to pronounce, to decree; and in its right sense it signifies the decree of Providence" (Leibnitz, *Fifth Paper to Dr Clarke*). Among all nations, however, it has been common to speak of *fate* or destiny as a power superior to gods and men—swaying all things irresistibly.

"Fatalists, that hold the necessity of all human actions and events, may be reduced to these three classes:—*First*, such as asserting the Deity, suppose it irrespectively to decree and

determine all things, and thereby make all actions necessary to us. . . . *Secondly*, such as suppose a Deity that, acting wisely, but necessarily, did contrive the general frame of things in the world; from whence, by a series of causes, doth unavoidably result whatsoever is so done in it: which *fate* is a concatenation of causes, all in themselves necessary, and is that which was asserted by the ancient Stoics, Zeno and Chrysippus. And, *lastly*, such as hold the material necessity of all things without a Deity; which *fate* Epicurus calls τὴν τῶν φυσικῶν εἰμαρμένην" (Cudworth, *Intell. Syst.*, bk. i. ch. i.).

Cicero, *De Fato*, Plutarchus, *De Fato*; Grotius, *Philosophorum Sententiæ De Fato*.

FEAR.—Agitation of mind on account of apprehended evil, throwing a disturbing, it may even be a paralysing, influence over the body. This form of feeling ranks among the Emotions.

FECHNER'S LAW.—V. PSYCHO-PHYSICS.

FEELING.—(1) In its widest sense, all passive experience. In this sense it is applied (*a*) to the sense of touch; (*b*) to all forms of sensibility; (2) in a more restricted sense, it is applied to the pleasurable and painful in mind by contrast with nerve-sensibility on the one hand and thought on the other. This last is the usual sense in modern philosophy, as in Hamilton's division of mental phenomena into Cognitions, Feelings, and Volitions. "This word has two meanings. *First*, it signifies the perceptions we have of external objects, by the sense of touch. When we speak of *feeling* a body to be hard or soft, rough or smooth, hot or cold, to *feel* these things is to perceive them by touch. They are external things, and that act of the mind by which we *feel* them is easily distinguished from the objects felt. *Secondly*, the word *feeling* is used to signify the same thing as *sensation*; and in this sense, it has no object; the *feeling* and the thing felt are one and the same. Perhaps betwixt *feeling*, taken in this last sense, and *sensation*, there may be this small difference, that *sensation* is most commonly used to signify those *feelings* which we have by our external senses and bodily appetites, and all our bodily pains and pleasures. But there are *feelings* of a nobler nature accompanying

our affections, our moral judgments, and our determinations in matters of taste, to which the word *sensation* is less properly applied" (Reid, *Intellectual Powers*, essay 1. ch. i.).

"The term *feeling* is frequently used, in a less proper sense, to signify what we feel or are conscious of, and in that sense it is a general term for all our passions and emotions, and for all our other pleasures and pains" (Kames, *Elements of Criticism*, app.).

James Mill identifies feeling and consciousness. He describes sensation as "a particular feeling, a particular consciousness," "a point of consciousness which we can describe no otherwise than by calling it a feeling" (*Analysis*, 1st ed., i. 7; 2nd ed., i. 12). Again, he says:—"Though I have these various modes of naming my sensation, by saying, I feel the prick of a pin, I feel the pain of a prick, I have the sensation of a prick, I have the feeling of a prick, I am conscious of the feeling; the thing named in all these various ways is the same" (*Analysis*, 1st ed., i. 71; 2nd ed., i. 224).

All sensations are *feelings*; but all *feelings* are not sensations. Sensations are those *feelings* which arise immediately and solely from a state or affection of the bodily organism. But we have *feelings* which are connected not with our animal, but with our intellectual and moral nature; such as *feelings* of the sublime and beautiful, of esteem and gratitude, of approbation and disapprobation. Those higher *feelings* it has been proposed to call *Sentiments* (*q.v.*).

From its most restricted sense of perceiving by the sense of touch, *feeling* has been extended by some to signify immediate perceiving or knowing in general. It has even been applied in this sense, though quite inaccurately, to the immediate knowledge which we have of first truths or the principles of common sense. "By external or internal perception, I apprehend a phenomenon of mind or matter as existing; I therefore affirm it to be. Now, if asked how I know, or am assured, that what I apprehend as a mode of mind, may not be, in reality, a mode of matter, or that what I apprehend as a mode of matter may not, in reality, be a mode of mind; I can only say, using the simplest language, 'I know it to be true, because I *feel*, and

cannot but *feel*,' or 'because I *believe*, and cannot but *believe*,' it so to be. And if further interrogated how I know, or am assured, that I thus *feel* or thus *believe*, I can make no better answer than, in the one case, 'because I *believe* that I *feel*'; in the other, 'because I *feel* that I *believe*.' It thus appears that, when pushed to our last refuge, we must retire either upon *feeling* or upon *belief*, or upon both indifferently. And, accordingly, among philosophers, we find that a great many employ one or other of these terms by which to indicate the nature of the ultimate ground to which our cognitions are reducible; while some employ both, even though they may award a preference to one. . . . In its present application (to say nothing of its original meaning in relation to touch) we must discharge that signification of the word by which we denote the phenomena of pain and pleasure" (Hamilton, *Reid's Works*, note A, sec. 5).

FELICITY.—Practically synonymous with *Happiness* (*q.v.*). "The felicity of this life consisteth not in the repose of a mind satisfied. . . . Felicity is a continued progress of the desire from one object to another" (Hobbes, *Leviathan*, pt. i. ch. ii.). Recent writers also use the word *felicific* in the sense of *production of happiness*.—[J. W.]

FETICHISM.—The term applied to the earliest and lowest forms of *Polytheism*. The Portuguese call the objects worshipped by the negroes of Africa *fetisso*—bewitched or possessed by fairies. It is described as consisting in the ascription of life and intelligence essentially analogous to our own, to every existing object, of whatever kind, whether organic or inorganic, natural or artificial (Comte, *Phil. Positive*).

"To transfer to inanimate objects the sensitive as well as the willing and designing attributes of human beings, is among the early and widespread instincts of mankind, and one of the primitive forms of religion; and although the enlargement of reason and experience gradually displaces this elementary *fetichism*, and banishes it from the region of reality into those of conventional fictions, yet the force of momentary passion will often suffice to supersede the acquired habit, and even an intelligent man may be impelled in a moment of agonising pain

to kick or beat the lifeless object from which he has suffered" (Grote, *History of Greece*, vol. v. p. 22).

In view of incidents such as this, Reid was of opinion that children naturally believe all things around them to be alive—a belief often encouraged by seniors.

FIGURE.—*V.* SYLLOGISM.

FIGURATIVE CONCEPTION.—A Hegelian expression for popular, as opposed to philosophical, thought. "In our ordinary state of mind, thoughts are overgrown and combined with the sensuous or mental material of the moment; and in reflection and ratiocination we blend our feelings, intentions, and conceptions with thoughts." "The specific phenomena of feeling, perception, desire, and will, so far as they are *known*, may be in general described under the name of Conception, as picture-thinking or materialised thought: and it may be roughly said, that philosophy puts thoughts, categories, or, in more precise language, adequate notions, in the place of semi-pictorial and material conceptions. Conceptions such as these may be regarded as the metaphors of thoughts and notions. But to have these figurate conceptions does not imply that we know their significance for thinking, or the thoughts and rational notions to which they correspond. Conversely, it is one thing to have thoughts and general ideas, and another to know what conceptions, perceptions, and feelings correspond to them" (*Logic of Hegel*, Wallace, ch. i. sec. 3).—[J. S.]

FINAL CAUSE.—The end of action as contemplated by an intelligent agent. The word "Cause" is inappropriately used in this case.—*V.* CAUSE. It is here equivalent to purpose, or deliberately preferred end, which supplies the reason for acting. This usage seems accounted for by the fact that the purpose of the agent is connected with the true motive for acting. As purpose and end are correlative, their harmony in nature and separation in time are indicated by the phrase "final cause." The end contemplated is naturally described as *design*. Thus when applied to the Universe as related to the First Cause, the argument from design is an argument as to final causes, inasmuch as the purpose of the Intelligent First Cause may be interpreted by rational explanation of existence,

and conspicuously by recognition of the adaptation of means to ends. Spinoza, in accordance with his philosophic theory, was strongly opposed to a doctrine of Final Causes. His argument will be found in the appendix to part i. of the *Ethics* (see Berkeley's *Principles of Human Knowledge*; Fraser's *Selections*, 2nd ed., p. 105; Janet, *Final Causes*).

FINITE.—V. INFINITE.

FIRST CAUSE.—The origin or source of all dependent being, that is, of all Being which is finite or not self-sufficient.

FITNESS and UNFITNESS.—The one is applied to the harmony of right actions with the dignity of our nature and with the order of things under the moral government of the world; the other to the want of such harmony or to conflict with established order, involved in wrong action. "They most frequently denote the congruity or incongruity, aptitude or inaptitude, of any means to accomplish an end. But when applied to actions, they generally signify the same with *right* and *wrong*; nor is it often hard to determine in which of these senses these words are to be understood. It is worth observing that *fitness* in the former sense is equally undefinable with *fitness* in the latter; or, that it is as impossible to express in any other than synonymous words, what we mean when we say of certain objects, 'that they have a *fitness* to one another; or are *fit* to answer certain purposes,' as when we say, 'reverencing the Deity is *fit*, or beneficence is *fit* to be practised.' In the first of these instances, none can avoid owning the absurdity of making an arbitrary sense the source of the idea of *fitness*, and of concluding that it signifies nothing real in objects, and that no one thing can be properly the *means* of another. In both cases the term *fit* signifies a simple perception of the understanding" (Price, *Review*, ch. vi.).

Clarke was the author who specially used the phrase "fitness of things," as expressive of the characteristic of right actions in the established order of the universe. He said virtue consists in acting in conformity to the nature and *fitness* of things. In this theory the term *fitness* does not mean the adaptation of an action, as a means towards some end designed by the agent; but a congruity, proportion, or suitableness

between an action and the relations, in which, as a moral being, the agent stands. Clarke has been misunderstood on this point by Dr Brown (lect. lxxvi.) and others (see Wardlaw, *Christian Ethics*, note E).

“Our perception of vice and its desert arises from, and is the result of, a comparison of actions with the nature and capacities of the agent. And hence arises a proper application of the epithets incongruous, unsuitable, disproportionate, unfit, to actions which our moral faculty determines to be vicious” (Butler, *Dissertation on Virtue*).

FORCE.—(1) Energy or power capable of moving objects, or affecting some change in the relations of things. For this the term “Energy” is now commonly reserved. (2) The measure of “Energy” acting in given circumstances.

According to Leibnitz, by whom the term *force* was introduced into modern philosophy, no substance is altogether passive. The two notions, force and substance, are inseparable; for you cannot think of action without a being, nor of a being without activity. A substance entirely passive is a contradictory idea (see Leibnitz, *De primæ Philosophiæ emendatione et de notione substantiæ*) — V. MONAD.

In like manner Boscovich maintained that the ultimate particles of matter are merely centres of forces, indivisible and unextended points endowed with the *forces* of attraction and repulsion. For a popular defence of the theory of Boscovich, see Kirkman’s *Philosophy without Assumptions*.

According to the Atomic Theory (*q.v.*) the phenomena of matter were explained by attraction and repulsion; and modern Materialism explains all changes by these two factors—matter and force (see Buchner’s *Matter and Force*; Spencer’s *First Principles*).

“*La force proprement dite, c’est ce qui régit les actes, sans régler les volontés.*” If this definition of *force* given by Comte be adopted, it would make a distinction between *force* and *power*. Power extends to *volitions* as well as to *operations*, to mind as well as matter, whereas *force* would be restricted to the physical.

FORM.—(1) The figure or shape of material objects; (2)

the inherent nature of an object, in contrast with the material of which it is constructed; (3) the condition or law of activity—form of action; (4) in the philosophy of Kant, that which the mind itself contributes as the condition of knowing,—the form of knowledge, as *matter* is the *given raw material* of knowledge.

Aristotle opposed *Form* (εἶδος) to *Matter* (ὑλη). The distinction is essentially the same as that between δύναμις and ἐνέργεια. *Form* was his substitute for the Platonic *Idea*. It has not, like the latter, an existence apart from the sensible thing, but is realised in its *matter*. It is defined by Aristotle as λόγος τῆς οὐσίας; and as οὐσία signifies, equally, substance and essence, the question arose whether *form* should be called substantial or essential, the Peripatetics espoused the former epithet, and the Cartesians the latter.

"Form is that of which matter is the receptacle." Now, although there can be no *form* without matter, yet, as it is the *form* which makes the thing what it is, the word *form* came to signify essence or nature. "*Form* is the essence of the thing, from which result not only its figure and shape, but all its qualities" (Monboddo, *Ancient Metaphysics*, bk. ii. ch. ii.).

"When we speak of *forms* we understand nothing more than the *laws* and *modes* of action which regulate and constitute any simple nature, such as heat, light, weight, in all kinds of matter susceptible of them; so that the *form* of heat, or the *form* of light, and the *law* of heat, or the *law* of light, are the same thing." Again, "since the *form* of a thing is the very thing itself, and the thing no otherwise differs from the *form*, than as the apparent differs from the existent, the outward from the inward, or that which is considered in relation to man from that which is considered in relation to the universe, it follows clearly that no nature can be taken for the true *form*, unless it ever decreases when the nature itself decreases, and in like manner is always increased when the nature is increased" (Bacon, *Nov Org.*, ii. 13, 17).

"That which in the phenomenon corresponds to the sensation, I term its *matter*; but that which effects that the content of the phenomenon can be arranged under certain relations, I

call its *form* " (*Critique of Pure Reason*, Meiklejohn's transl., p. 21). Thus Space and Time are forms of knowledge. The Kantian distinction between Form and Matter is criticised by Lotze (*Logic*, 457, Bosanquet's transl.).

Aristotle, *Metaphysics*, bks vii., viii.; Ueberweg's *History*, i. 157; Schwegler's *History*, 8th ed., i. 105; Michelet, *Examen Critique de la Metaphysique d'Aristote*; Ravaisson, *Essai sur la Metaphysique d'Aristote*. For Scholastic usage, Ueberweg's *History*, i. 399.—*V. LAW, MATTER.*

FORMAL.—Opposed by Descartes, Spinoza, and others, to *objective* (*q.v.*), and thus equivalent to *objective* in modern sense (see Veitch's *Descartes*, app. 7).

FORMAL CAUSE.—*V. CAUSE, FORM.*

FORMALITER.—*V. EMINENTER.*

FORMAL LOGIC.—*V. LOGIC.*

FORTITUDE.—Bravery, one of the four *cardinal* virtues of the ancients. According to varied tests, it may involve *constancy* in the face of danger and difficulty, *intrepidity* in the midst of perils, *patience*, including submission, resignation. For Plato's account of this virtue, see *Republic*, iv. 429, where it is represented as the soldierly virtue; for Aristotle's, *N. Ethics*, bk. iii. chs. vi.—ix.—*V. COURAGE.*

FREEDOM.—*V. LIBERTY, FREE-WILL.*

FREE-THINKER.—One who exercises speculative thought, more commonly in critical form, in disregard of authority, of common consent of mankind, and of alleged first principles of faith and conduct. This term is applied to Toland, "a candid Free-thinker," by Molyneux, in a letter to Locke, 1697. Shaftesbury, in 1709, speaks of "our modern free-writers" (*Works*, vol. i. p. 65). But it was Collins, in 1713, in his *Discourse of Free-thinking*, who first appropriated the name to express the independence of inquiry claimed by the Deists. There is no parallel word in other languages (see Farrar, *Bampton Lectures*).

FREE-WILL.—Power of self-determination, under guidance of intelligence, and superior to sensibilities and motive forces in our nature. "The Will is that kind of causality belonging to living agents in so far as they are rational, and freedom

is such a property of this causality as enables them to originate events, independently of foreign determining causes" (Kant's *Metaphysic of Ethics*, ch. iii., Semple's tr., 3rd ed., p. 57; Abbott's, 3rd ed., p. 65). Calderwood's *Handbook of Mor. Phil.*, p. 169. On the genesis of the doctrine of Free-Will, see Sully, *Sensation and Intuition*. Sidgwick (*Methods of Ethics*, p. 45) regards Free-Will as an unsolved problem.—*V. LIBERTY, NECESSITY, WILL.*

FRIENDSHIP—Mutual affection between persons. It springs from the social nature of man, and rests on the esteem which each entertains for the good qualities of the other. (Aristotle, *N. Ethics*, bks. viii. and ix.; Cicero, *De Amicitia*).

FULL (The).—*V. ATOMISM.*

FUNCTION (*fungor*, to perform).—The special exercise or form of activity belonging to an organ or a power when operating for the attainment of its appropriate end. Each organ of the body and each power of the mind has its peculiar function.

"The word *functio*, in Latin, simply expresses performance or operation; *functio muneris* is the exertion of an energy of some determinate kind. But with us the word *function* has come to be employed in the sense of *munus* alone, and means not the exercise, but the specific character, of a power. Thus the *function* of a clergyman does not mean with us the performance of his duties, but the peculiarity of these duties themselves. The *function* of nutrition does not mean the operation of that animal power, but its discriminate character" (Hamilton, *Metaph.*, lect. x.).

FUNDAMENTUM DIVISIONIS.—*V. DIVISION.*

GENERAL TERM.—*V. TERM.*

GENERALISATION "is (1) the *act* of comprehending, under a common name, several objects agreeing in some point which we abstract from each of them, and which that common name serves to indicate;" (2) the *result* of this act, *e.g.*, the law of gravitation.

"When we are contemplating several individuals which resemble each other in some *part* of their nature, we can (by attending to *that part alone*, and not to those points wherein they differ) assign them *one common name*, which will express

or stand for them merely as far as they all *agree*, and which, of course, will be applicable to all or any of them (which process is called *generalisation*); and each of these names is called a *common* term, from its belonging to them *all alike*; or a *predicable*, because it may be predicated affirmatively of them or of any of them" (Whately, *Logic*, bk. ii. ch. v. sec. 2).

The results of *generalisation* are general notions expressed by general terms. Objects are classed, according to certain properties which they have in common, into genera and species. Hence arose the question which caused centuries of acrimonious discussion,—Have genera and species a real independent existence, or are they only to be found in the mind?—V. REALISM, NOMINALISM, CONCEPTUALISM, SPECIALISATION.—(Reid, *Intellectual Powers*, essay v. ch. vi.; Stewart, *Elements*, ch. iv.).

Generalisation is of two kinds—*classification* and *generalisation* properly so called.

When we observe facts accompanied by diverse circumstances, and reduce these circumstances to such as are essential and common, we obtain a law.

When we observe individual objects, and arrange them according to their common characters, we obtain a class. When the characters selected are such as belong essentially to the nature of the objects, the class corresponds with the law. When the character selected is not natural, the *classification* is artificial. If we were to class animals into white and red, we would have a *classification* which had no reference to the laws of their nature. But if we classify them as vertebrate and invertebrate, we have a *classification* founded on their organisation. Artificial *classification* is of no value in science, it is a mere aid to the memory. Natural *classification* is the foundation of all science. It is sometimes, though not properly, called *Generalisation*.—V. CLASSIFICATION.

Generalisation proper is almost synonymous with *Induction*. The law of gravitation, *e.g.*, is a great generalisation. It is exemplified in the fall of a single stone to the ground. But many stones and other heavy bodies must have been observed to fall before the fact was generalised and the law stated. And in this process of *generalising* there is involved a principle

which experience does not furnish. Experience, how extensive soever it may be, can only give the particular, yet from the particular we rise to the general, and affirm not only that all heavy bodies which have been observed, but that all heavy bodies, whether they have been observed or not, gravitate. In this is implied a belief that there is order in nature, that under the same circumstances the same phenomena will occur.—*V.* INDUCTION.

GENERIC IMAGES.—*V.* CONCEPTION, ABSTRACTION.

GENIUS (from *geno*, the old form of the verb *gigno*, to produce).—(1) In ancient times applied to the tutelary god or spirit appointed to watch over an individual. (2) As the character and capacities of men were supposed to vary according to the higher or lower nature of their *genius*, the word came to signify the natural powers and abilities of men, more particularly their natural inclination or disposition. (3) The peculiar and restricted use of the term is to denote a high degree of productive or inventive mental power. "*Genius*," says Blair (*Lectures on Rhetoric*), "always imports something inventive or creative" "It produces what has never been accomplished, and which all in all ages are constrained to admire. Its chief elements are the reason and the imagination, which are alone inventive and productive. According as one or other predominates, *genius* becomes scientific or artistic. In the former case it seizes at once those hidden affinities which otherwise do not reveal themselves, except to the most patient and vigorous application; and as it were intuitively recognising in phenomena the unalterable and eternal, it produces truth. In the latter, seeking to exhibit its own ideas in due and appropriate forms, it realises the infinite under finite types, and so creates the beautiful."

"To be able to perceive identity in things widely different, and diversity in things nearly the same, thus it is that constitutes what we call *genius*, that power divine, which through every sort of discipline renders the difference so conspicuous between one learner and another" (Harris, *Phil. Arrang.*).

GENUINE.—A term applied to documentary evidence. A document is said to be *genuine* when its authorship cannot be

disputed, or when the hypothesis of fraud or fabrication cannot be maintained (*e.g.*, Junius).—V. AUTHENTIC.

GENUS.—A higher class which includes a lower, called its *species*. The genus has the larger extension; the species the larger intension. The distinction between genus and species is a relative one, the class which is called a species in reference to the next higher, becoming in turn a genus in reference to the next lower class. The *summum genus* is defined as that genus which, being a genus, can never become a species; *i.e.*, it is the term in any series whose extension is the largest possible. It has been denied that there is any *summum genus*; but whether there be any such absolutely or not—as *Being*—each science, at all events, and each particular inquiry has its own *summum genus*, beyond which it never goes in the ascending series of species and genera, *e.g.*, *Organism* is the *summum genus* of Biology. Those genera which become in turn species are called *subalternate*. The *proximate* genus of any species is that between which and the species no other genus intervenes, *e.g.*, *animal* is the proximate genus of man.—[J. S.]

GNOSTICISM (γνῶσις, knowledge, as distinct from πίστις).—A general name for the speculation of the first and second centuries of the Christian era, which resulted from the attempt to advance from faith to knowledge under the Christian system. The object was to develop a Christian philosophy. In this speculation, the Jewish Christians and the Alexandrian had a conspicuous share. This speculation was concerned largely with supra-mundane existence. It resorted to allegorical interpretation of Scripture, and was in some of its forms largely influenced by Platonic thought. The theories included under the general name are mystic in form, working out schemes of existence on the hypothesis of *Æons*, occupying an intermediate position between the unsearchable One and the universe. These *Æons* become the active agents in the origin and government of the world.

After the authors of *Clementines* and the *Epistle of Barnabas*, the most important names are Cerinthus, Saturninus, Carpocrates, Basilides, and Valentinus.

Ueberwig's *Hist. of Phil.*, i. 280; Neander's *Church History*,

vol. ii., Eng. transl. ; Bunsen's *Analecta Ante-Nicana* ; Schaff's *History of the Christian Church*, vol. i.

GOD, in Anglo-Saxon, Good,—the Supreme Being,—Latin (*Deus*), Greek (*Θεός*). These terms were applied also to spiritual beings superior to man.

That department of knowledge which treats of the being, perfections, and government of *God*, is *theology* (*q.v.*). The true conception of God and of His relation to the universe is the supreme problem of philosophy. To trace the views which have been held as to the Divine nature would be to write the history of philosophy.—*V. ABSOLUTE, INFINITE.*

GOOD.—(1) Common term for the desirable, applicable to any thing having value in the eyes of men ; (2) in its ethical sense, the quality of an action in harmony with moral law ; (3) "The Good," *Summum Bonum*, the chief end of life, - that which all seek after (Aristotle) ; (4) "The Good," the Absolute,—God (Plato). For the conception of *Good* under an evolution theory, see Spencer, *Data of Ethics*, p. 21. [J. S.]

GOOD (The Chief), the *Summum Bonum*, that which constitutes the true end and blessedness of human life. The discussion of this is the main characteristic of the various answers to the question What is the Chief Good? (Aristotle's *Ethics*). Varro enumerated 288 (August, *De Civit.*, lib. xix. cap. i.). The ends aimed at by human action, how various soever they may seem, may be reduced to two—happiness and perfection. The highest end is duty ; *the chief good* of man lies in the discharge of duty. By consistent fulfilment of this he perfects his nature, and may at the same time enjoy the highest happiness (Cicero, *De Finibus Bonorum et Malorum*).—*V. BONUM (SUMMUM).*

GRAMMAR (Universal), from the Greeks, who included under *τέχνη γραμματική* the art of writing and reading letters. Language is the expression of thought -thought is the operation of mind, and hence language may be studied as a help to psychology (Reid, *Intellectual Powers*, essay i. ch. v.).

In Greek, the same word (*λόγος*) means reason and language. And in Latin, reasoning is called *discursus* -a meaning which is made English by our great poet when he speaks of "large

discourse of reason." In all this the connection between the powers of the mind and language is recognised.

Every judgment involves the idea of a *substance*, of which some *quality* is affirmed or denied—so that language must have the substantive or noun, the adjective or quality, and the verb connecting or disconnecting. If the objects of our thoughts existed or were contemplated singly, these parts of speech would be sufficient. But the relation between objects, and the connection between propositions, render other parts of speech necessary. It is because we have ideas that are general, and ideas that are individual, that we have also *nouns common* and *proper*; and it is because we have ideas of unity and plurality, that we have *numbers, singular, dual, and plural*. *Tenses* and *moods* arise from dividing duration, and viewing things as conditional or positive. Even the order or construction of language is to be traced to the calm or impassioned state of mind from which it proceeds.

Plato has given his views of language in the *Cratylus*, and Aristotle, in his *Interpretation* and *Analytics*, has laid the foundations of general *grammar*. So in later times the most successful cultivators of mental philosophy have also been attentive to the theory of language (see Max Muller, *Lectures on the Science of Language*).

GRANDEUR. Greatness, whether in elevation, or vastness, or splendour, relatively to other things. "The emotion raised by *grand* objects is awful, solemn, and serious."

"To me *grandeur* in objects seems nothing else but such a degree of excellence, in one kind or another, as merits our admiration.

"Of all objects of contemplation, the Supreme Being is the most *grand*. . . . The emotion which this grandest of all objects raises in the mind is what we call devotion—a serious *recollected* temper, which inspires magnanimity, and disposes to the most heroic acts of virtue.

"The emotion produced by other objects which may be called *grand*, though in an inferior degree, is, in its nature and in its effects, similar to that of devotion. It disposes to seriousness, elevates the mind above its usual state to a kind of enthusiasm, and inspires magnanimity, and a contempt of what

is mean" (Reid, *Intellectual Powers*, essay viii. ch. iii.).—V. SUBLIMITY, BEAUTY, ÆSTHETICS.

GRATITUDE, sympathetic appreciation of benevolence shown towards oneself. This sense of kindness done or intended is accompanied by a desire to return it, hence described as benevolent. As benevolence between man and man is a duty, gratitude is named a moral affection, that is, gratitude is a disposition, the exercise and cultivation of which is required by moral law (see Chalmers, *Sketches of Mental and Moral Philosophy*, ch. viii.; Shaftesbury, *Moralists*).

GRIEF, one of the Emotions (like Fear) (see Calderwood, *Handbook of Moral Philosophy*, p. 162).

HABIT (ἔξῆς, *habitus*).—(1) The law in accordance with which facility in action is acquired by repetition; (2) the acquired facility, whether physical or mental, regarded as a personal possession. In Ethics, a virtue as an acquired tendency.

By Aristotle ἔξῆς is defined (*Metaph.*, lib. iv. cap. xx.) to be, in one sense, the same with διάθεσις, or disposition. His commentators make a distinction, and say ἔξῆς is more permanent. There is the same distinction in English between *habit* and *disposition*. In the *N. Ethics* Aristotle uses the term as equivalent to virtue regarded as a personal acquisition resulting from deliberate and persistent regard to the great end of life (*N. Ethics*, ii. 5).

Mental *Habits* are distinguished by Aristotle into intellectual and moral. From *habit* results power or virtue, and the intellectual *habits* or virtues are intellect, wisdom, prudence, science, and art. These may be subservient to quite contrary purposes, and those who have them may exercise them spontaneously and agreeably in producing directly contrary effects. But the moral virtues, like the different *habits* of the body, are determined by their nature to one specific operation. Thus, a man in health acts and moves in a manner conformable to his healthy state of body, and never otherwise, when his motions are natural and voluntary; and in the same manner the habits of justice and temperance uniformly determine those adorned by them to act justly and temperately" (Aristotle, *N. Ethics*, lib. i. ch. xiii.; ii. ch. v. and vi.; v. cap. i.).

Habits have further been distinguished as active or passive. The determinations of the will, efforts of attention, and the use of our bodily organs, give birth to *active habits*, the acts of the memory and the affections of the sensibility, to *passive habits*. Aristotle (*N. Ethic*, lib. iii.) proves that our habits are voluntary, as being created by a series of voluntary actions.

Actions, according to Aristotle, are voluntary throughout; *habits* only as to their beginnings. Habits, having become in a measure fixed in the nature, cannot be changed without voluntary and long continued effort to undo what has been done.

Thurot (*De l'Entendement*, i. 128) calls "*habît* the memory of the organs, or that which gives memory to the organs." Physical habit is in a sense physical memory.

Bacon, *On Advancement of Learning*, bk. vii.; Maine de Biran, *L'Influence de l'Habitude*, Dutrechet, *Theorie de l'Habitude*; M. F. Ravaisson, *De l'Habitude*; Butler's *Analogy*, i. 5; Reid, *Active Powers*, essay iii. 1, 3, *Intellectual Powers*, essay iv. 1; Carpenter's *Mental Physiology*, bk. i. ch. viii.

HALLUCINATION.—A delusion consequent either on temporary confusion of mind, or on more enduring disorder of thought, originated and continued by an abnormal sentiment, or a diseased condition of brain.

HAPPINESS. (1) Agreeable experience in its widest sense; (2) a higher phase of such experience resulting from harmonious action of our powers under guidance of intelligence. For this higher experience the word Happiness is more commonly reserved, while Pleasure is used to designate the lower and more transient forms of agreeable sentient experience.

The Greeks called the sum total of the pleasure which is allotted or happens to a man *eὖτυχία*, that is, good hap; or, more religiously, *εὐκαιρία*, that is, favourable providence (*Coleridge's Aids to Reflection*).

To live well and to act well is synonymous with being happy (Aristotle, *N. Ethic*, lib. i. cap. iv.). Happiness, according to Aristotle, is the blessedness of a perfect state, in which the whole powers of the agent are in full activity.

Happiness is never desired but for its own sake only. As pleasure is the aim of mere desire, and interest the aim of

prudence, so *happiness* is the aim of wisdom. *Happiness* is conceived as necessarily an *ultimate* object of action. That which we contemplate as the ultimate and universal object of desire, must be identical with that which we contemplate as the ultimate and supreme guide of our intentions. As moral beings, our *happiness* must be found in our moral progress, and in the consequences of our moral progress. we must be happy by being virtuous? (Whewell, *Morality*, Nos. 544, 545)

On the ambiguity of the term *Happiness*, see Green, Introduction to *Hume's Ethical Works*, n. 12.

See Aristotle, *N. Ethicæ*, lib. i; Leibnitz, *De Vita Beata*. Harris, *Dialogue on Happiness*.—V. GOOD (CHIEF), PERFECTION, SUMMUM BONUM).

HAPPINESS THEORY OF MORALS,--that which finds in the agreeable the criterion of rectitude. In accordance with this fundamental ^{principle}, all agreeable experience is included within the ^{range} of morals. But, in a rational life, comparisons are inevitable. The agreeable, considered in itself alone, or mere desire in any phase, cannot be allowed to supply the rule of life. The necessity for limitation appears in a rational regard to our good on the whole. Prudential considerations are necessary, requiring attention to the utility of actions, or their adaptation to secure our good on the whole. Hence the theory is named *Utilitarianism*. The standard of morals under this scheme thus becomes the agreeable, as determined by a rational nature, with regard to our good on the whole. After the discrimination of pleasures comes the reference to the interests of all moral agents in the possibility of happiness. The earlier phase of the theory made personal happiness the test of right conduct, hence named *Egoistic Hedonism* (Hobbes, though at the same time stating and expounding eternal laws of nature). The later phase has passed over to the general happiness of men as the rational basis for judging of action, hence named *Altruistic Hedonism* or *Eudaimonism*, having as its formula "The Greatest Happiness of the Greatest Number." Its upholders have been, Bentham, J. S. Mill, and Bain. J. S. Mill distinguished between pleasure by reference to their degree, giving the preference to the higher

or more intellectual pleasures, and constituting those who have had experience of all kinds the sole judges. Bain has criticised adversely this position, alleging that J. S. Mill had given opponents "important strategic positions," and maintaining that he "ought to have resolved all the so-called nobler or higher pleasures into the one single circumstance of including, with the agent's pleasure, the pleasure of others. This is the only position that a supporter of Utility can hold to" (*J. S. Mill: A Criticism*, p. 113). Sidgwick (*Methods of Ethics*) has combined an intuitional element with the Utilitarian Ethics, and has critically examined the rival claims of Utilitarianism and Intuitionalism. Sidgwick's object is to secure at the outset a basis for moral obligation.

Historically, Modern Utilitarianism stands in relation to the Cyrenaic and Epicurean Schools of Ancient Philosophy; prior to both, the Socratic philosophy contained a large Eudæmonistic element; between the two, the Ethics of Aristotle worked out in higher form a theory on the basis that Happiness, as connected with the perfection of human life, is the end of life (Modern Utilitarianism, Hobbes' *Leviathan*, Paley's *Moral Philosophy*; J. S. Mill' *Utilitarianism*; Bain's *Moral Science* and *Criticism of J. S. Mill*; Sidgwick's *Methods of Ethics*). F. EUDÆMONISM.

HARMONY, the affinity or agreement of relations and movements, adapting them for combination. The conception that a philosophy of life could be found in the harmony of relations, guiding action according to definite laws of computation, was a favourite one in Ancient Philosophy. It is a natural outcome of the Pythagorean theory of numbers, leading to their doctrine that the soul is a harmony, and consequently that "Virtue is harmony, and also health, and universal good, and God; on which account everything owes its existence and consistency to harmony" (Diog. Laert., lib. viii. ch. i.; F. Zeller, *Ueberweg*, Schwedler, *in loc.*). This conception is also prominent in Plato's Ethics, as he makes melody and harmony symbolic of true discipline, music and gymnastic being the two sides of education (*Republic*, bk. iii. p. 110).

Pre-established Harmony, the designation of Leibnitz

for his theory of the Divinely-established relation between body and mind—the movements of monads and the succession of ideas, as it were a constant agreement between two clocks (*Syst. Nouv.*, p 14; Erdmann, pp. 127 to 133 *seq.*, *Théodicée*, *La Monadologie*).

Let us suppose a mind, the order and succession of whose modifications corresponded with the series of movements to take place in some body, God would unite the two and make of them a living soul,—a man. Here, then, is the most perfect harmony between the two parts of which man is composed. There is no commerce nor communication, no action and reaction. The mind is an independent force, which passes from one volition or perception to another in conformity with its own nature, and would have done so although the body had not existed. The body, in like manner, by virtue of its own inherent force, and by the impression of external objects, goes through a series of movements; and would have done so although it had not been united to a rational soul. In short, the mind is a spiritual automaton, and the body is a material automaton. But the movements of the body and the modifications of the mind correspond to each other. Like two pieces of clock-work, they are so regulated as to mark the same time; the spring which moves the one is not the spring which moves the other, yet they go exactly together. The harmony between them existed before the mind was united to the body. Hence this is called the doctrine of *pre-established harmony*.

It may be called *correspondence* or *parallelism*, but not *harmony* between mind and body—for there is no unity superior to both, and containing both, which is the cause of their mutual penetration (*Tiberghien, Essai des Cannais. Hum.*).

This doctrine was first advocated by Leibnitz, as an advance on the doctrine of *Occasional Causes*, from which it differs “only in this respect, that by the former the accordance of the mental and the bodily phenomena was supposed to be pre arranged, once for all, by the Divine Power, while by the latter their *harmony* was supposed to be brought about by His constant interposition.”—*V. CAUSES (OCCASIONAL)*.

This, however, is only one aspect of the Leibnitzian doctrine

of *pre-established harmony*, which was not limited to the case of body and mind, but was the outcome of the doctrine of monads. The life of each monad was independent of that of all the rest; there was no possibility of inter-action, and the correspondence of the life of each with that of all the others could be accounted for only by the postulate of a harmony pre-established by God.

HARMONY (of the Spheres).—The ancient philosophers supposed that the regular movements of the heavenly bodies throughout space formed a kind of *harmony*, determined by the relations to each other of the intervals of separation. The Pythagoreans adduced this as an illustration of their doctrine of the harmony of numbers (Aristotle, *De Celo*, ii. 9). This was a general belief in ancient times, and was a favourite doctrine of the Pythagoreans.

HATE.—Revulsion of feeling against things and persons, regarded as evil. As concerned with person, it takes the form of antagonism, subject to moral law, and limited especially by the law of benevolence. It is to be ranked among the Affections. Ethical Hate is antagonistic to moral evil.

HEDONISM (*ἡδονή*, pleasure) is the doctrine that the chief good of man lies in the pursuit of pleasure. This was the doctrine of Aristippus and the Cyrenaic school; hence called *ἡδονικολ*. According as personal pleasure alone is considered, or general happiness, it is Egoistic Hedonism or Altruistic Hedonism (*cf.* Sidgwick, *Methods of Ethics*, pp. 107–171). **HAPPINESS THEORY and EUDAIMONISM.**

HEREDITY. The law of reproduction as it appears in the history of species, implying (1) that each species transmits to offspring its essential characteristics; (2) that acquired aptitudes, or forms of adaptation to environment, are transmitted to offspring, thereby providing for physiological advances, or true evolution of organism, and persistence of structural gain in the history of species. There is also hereditary transmission of mental characteristics; but here the law is more obscure, only a beginning having been made with the effort to gather scientific evidence (*V.* Darwin, *Descent of Man*; Carpenter, *Mental Physiology*; Galton's *Hereditary Genius*).

HETEROGENEITY, separateness of nature, applicable

to objects so standing apart from each other that they are regarded as distinct, even when conjoined or contemplated in relation. (1) As concerning material existence, objects which cannot cohere or combine in the constitution of a unity, (2) as concerning mental phenomena, those which, while combined in thought, are thought as distinct and separate, this separateness being essential to the mental relation. According to Spencer's definition, the transition in Evolution is "from an indefinite, incoherent *homogeneity*, to a definite, coherent *heterogeneity*" (*First Principles*, p. 396).—V. EVOLUTION, DIFFERENTIATION.

HETERONOMY (ἕτερος, another, νόμος, law).—A professed law of conduct which is inconsistent with our Reason. This is Kant's designation for a false principle of morals, such as receives acknowledgment when personal desire determines the right for us instead of moral law. In contrast with Heteronomy, the recognition of moral law as the absolute law of life is Autonomy of the Will, or Autonomy of the Reason (*Critique of Practical Reason*; *Metaph. of Ethics*, Semple's transl., new ed., Calderwood, p. 93; Abbott's *Kant's Ethics*, pp. 51 and 59). "If the Will seeks the law which is to determine it, *anywhere else* than in the fitness of its maxims to be universal laws of its own dictation; consequently, if it goes out of itself and seeks this law in the character of any of its objects, there always results *heteronomy*" (Abbott's transl., p. 59).

HISTORY (Philosophy of). The tracing of the rational principles which guide the development of the events of History. The founder was Vico, but Hegel may be called its second founder; and his example in the treatment of history has been followed by his school. The conception of Evolution, both in its physical and dialectical forms, has been brought to bear upon History. Historians of Philosophy also have traced in the development of philosophical systems the necessary march of reason (see Hegel, *Philosophy of History*, transl. in Bohn's series; Flint's *Vico*, in *Philosophical Classics*; Zeller, *History of Greek Philosophy*, introd.; Schwegler, *History of Philosophy*, introd., Stirling).

HOBBIISM (from the name of the author of *The Leviathan*).

—The theory that morality is an institution of society, deriving its obligation from the command of the civil power. Traces of such a view are to be found in the speculation of the Greek Sophists. Hobbes was, however, the first to give it systematic shape.

The “natural” condition of man, said Hobbes, is a state of war, *i.e.*, not of actual fighting, but of “the known disposition thereto.” Apart from social restrictions, every man seeks the satisfaction of his own desires; and as the desires of all are irreconcilably opposed, there results a *bellum omnium contra omnes*. This state of anarchy is, however, utterly intolerable, and for the sake of peace men agree to renounce a part of their claims, on condition of being secured in the possession of the rest. To enforce this agreement is the work of civil government; in Hobbes’ view, the best government is absolute monarchy, which must be absolute and irresponsible; the supreme power must be the sole source of law, and law must prescribe morality and religion. Thus the rules of morality are “Articles of Peace”; as means of attaining peace they are appointed by nature, and are eternal, voluntarily adopted by man, and are thus far conventional.

Political and religious interests being involved, this political theory was at once vigorously assailed. Among other writers, Cumberland, Cudworth, and Clarke—each in his own way—argued that morality is prior to and independent of positive law. Cumberland asserted a law of Nature; Cudworth a law of Reason; Clarke a system of moral principles, similar in nature to mathematical relations. It was only in the following generation that a number of thinkers, under the influence of Locke, attacked the egoistic basis on which the political philosophy of Hobbes rested.—[J. W.]

HOLINESS. Perfect moral purity. “The perfect accordance of the Will with the moral law is holiness” (Kant’s *Critique of Practical Reason*, bk. ii. ch. ii. sec. 4; Abbott’s transl. *Kant’s Ethics*, 218).

“The term is often used to indicate hatred of evil. It suggests the idea, not of perfect virtue, but of that peculiar affection wherewith a being of perfect virtue regards moral evil; and so

much indeed is this the precise and characteristic import of the term, that, had there been no evil, either actual or conceivable, in the universe, there would have been no *holiness*. There would have been perfect truth and perfect righteousness, yet not *holiness*; for this is a word which denotes neither any one of the virtues in particular, nor the assemblage of them all put together, but the recoil or the repulsion of these towards the opposite vices—a recoil that never would have been felt if vice had been so far a nonentity as to be neither an object of real existence nor an object of thought" (Chalmers, *Nat. Theol.*).

HOMOGENEITY.—Likeness of nature. Applicable (1) to such similarity among distinct beings or forms of organism that they can be classified as constituting a species; (2) to parts of organic existence which belong to the composition of an individual; (3) to thoughts, so closely allied as to constitute such a synthesis in our rational procedure, that the elements belong to each other, or are essential to each other.—**V. HETEROGENEITY, EVOLUTION.**

HOMOLOGUE (*ὁμός*, same; *λόγος*).—"The corresponding parts in different animals are called *homologues*" (Whewell).

"A *homologue* is defined as the same organ in different animals, under every variety of form and function. Thus, the arms and feet of man, the fore and hind feet of quadrupeds, the wings and feet of birds, and the fins of fishes, are said to be *homologous*" (McCosh, *Typical Forms*, p. 25).—**V. ANALOGUE.**

HOMOTYPE (*ὁμός*, same; *τύπος*, type).—"The corresponding or serially repeated parts in the same animal are called *homotypes*. Thus, the fingers and toes of man, indeed the fore and hind limbs of vertebrate animals generally, are said to be *homotypal*" (McCosh, *Typical Forms*).

HUMANITY (Religion of).—This is the religion of *Positivism* (*q.v.*). Having undermined the theological basis of Religion, as worship of a God outside of and above humanity, by showing that this is only the first stage of intellectual progress, which must be left behind for the metaphysical, and finally for the positive, Comte set himself to substitute for the old a new religion, independent of theological dogma, and abreast of the Positive view of things. The object of Positivist

worship is Humanity itself, the human race in its totality—past, present, and future—which is conceived as the Grand-Être. Comte constructed an elaborate system of ritual observance, some of the particulars of which are fantastic enough. It should be said that by no means all Positivists accept Comte's religious teaching (see Comte, *Cours de Philosophie Positive*; Harrison, *Contemp. Review*, 1884; E. Caird, *Social Philosophy of Comte*; Flint, *Antitheistic Theories*, lect. v.).

HUMOUR (*humor*, moisture).—(1) Originally the physiological conditions attending on thought and feeling; (2) the changeable flow of disposition; (3) appreciation of latent traces of similarity and contrast, occasioning sudden changes of disposition, fitted to amuse.

HYLOZOISM (ἔλη, matter; and ζωή, life).—The doctrine that life and matter are inseparable, frequently appearing in Ancient Philosophy with speculation as to the life or soul of the world, and the producing power of nature. Strato of Lampascus held that the ultimate particles of matter were each and all of them possessed of life (Ueberweg's *Hist.*, i. 183). The Stoics, on the other hand, while they did not accord activity or life to every distinct particle of matter, held that the universe, as a whole, was a being animated by a principle which gave to it motion, form, and life (Zeller's *Stoics*, &c., 125). This doctrine appeared among the followers of Plotinus, who held that the soul of the universe animated the least particle of matter. Spinoza asserted that all things were alive in different degrees. *Omnia quævis diversis gradibus animata tamen sunt.* In the whole of this discussion there is a confounding of *life* with *force*.

HYPOSTASIS.—V. ENTITY, SUBSISTENTIA.

HYPOTHESIS (ὑπόθεσις, supposition).—In Logic, Aristotle gave the name *θέσις* to every proposition which, without being an axiom, served as the basis of demonstration, and did not require itself to be demonstrated (*Anal. Post.*, i. 2, 72). He distinguished two kinds of thesis, the one which expressed the essence of a thing, and the other which expressed its existence or non-existence. The first is the *ἀπὸρρὸς* or definition—the second, the *ὑπόθεσις*. The *Hypothesis* he defines

as "the taking one of two opposite alternations as true, while it might either be true or false" (*i.e.*, it is not axiomatic) (*Anal. Post.*, 1. 2). He thus distinguishes between *demonstrative* and *hypothetical* inference (ἡ δεικτικὴς ἢ ἐξ ὑποθέσεως). But, while he elaborated his account of the former, he did not pursue the investigation of the latter. The scientific significance of *Hypothesis* could not indeed be appreciated till the advance of science had shown the necessity of a logic of Science or of Induction, of which the doctrine of Hypothesis is an important part. Accordingly, it is only in modern times that the nature and importance of Hypothesis have been carefully attended to. Mill defines Hypothesis as "any supposition which we make (either without actual evidence or on evidence avowedly insufficient) in order to endeavour to deduce from it conclusions in accordance with facts which are known to be real. It is, in short, an *assumed* law or cause

When a phenomenon that is new to us cannot be explained by any known cause, we try to reconcile it to unity by assigning it *ad interim* to some cause which may appear to explain it.

By *hypothesis*, therefore, is understood the supposing of something, the existence of which is not proved, as a cause to explain phenomena which have been observed. It thus differs in signification from *theory* (*q.v.*), which explains phenomena by causes which are known to exist and to operate

"An hypothesis sufficiently confirmed," says Ueberweg (*Logic*, p. 506, Lindsay's transl.), "establishes a *Theory*, *i.e.*, the explanation of phenomena from their universal laws." And Mill says (*Logic*, bk. iii. ch. xiv. sec. 5):—"Nearly everything which is now theory was once hypothesis." In order to the conversion of Hypothesis into Theory or established law the hypothesis must be *verified*, *i.e.*, the consequences deducible from it must be shown to harmonise with the actual facts, and it must further be shown that it is the *only* supposition which accounts for these facts. As to the relative value of conflicting hypotheses, Ueberweg says (*Logic*, p. 506, Lindsay's transl.):—"The hypothesis is the more improbable in proportion as it must be propped up by artificial *auxiliary hypotheses* (hypotheses subsidariæ). It gains in probability by *simplicity*, and *harmony*

(or partial) *identity* with other probable or certain presuppositions (. . . . causæ præter necessitatem non sunt multiplicandæ). The content of the hypothesis acquires absolute certainty, so far as it succeeds in recognising the supposed reason to be the only one possible by excluding all others conceivable, or in proving it to be the consequence of a truth already established." Between the absolute establishment of a hypothesis and its absolute rejection there is another possibility, viz., its correction. This last is the general case. The course of science is through successive hypotheses to more adequate knowledge. "We arrive, by *means* of hypotheses, at conclusions *not* 'hypothetical.' Sometimes a single case is sufficient to decide between two rival hypotheses—a case which cannot be explained by the one, and can *only* be explained by the other." Such a case is called an *Experimentum Crucis* (*q.v.*) (Reid, *Intellectual Powers*, essay i. ch. iii.; Bacon, *Nov. Org.*, i. 104; Leibnitz, *Nov. Ess.*, 4, ch. xii.; Whewell's *Nov. Org. Renon.*; Mill, *Logic*, bk. iii. ch. xiv.; Ueberweg, *System of Logic*, sec. 134) —[J. S.]

HYPOTHETICAL —Applied both to Propositions and to Syllogisms. The hypothetical *proposition*—sometimes called *conjunction*—is a species of conditional proposition. It consists of two propositions—called respectively antecedent and consequent—related to each other as condition and conditioned, the truth of the one depending on the truth of the other, *e.g.*, "If it rains, I shall not go." The hypothetical or conjunctive *syllogism* is one whose major premiss is a hypothetical proposition, its minor premiss and conclusion being categorical. It is either *constructive* (modus ponens) or *destructive* (modus tollens); in the former case the antecedent is affirmed, in the latter the consequent denied. There is no other alternative. Hence the fallacies of *affirming the consequent* and *denying the antecedent*. —[J. S.]

HYPOTHETICAL DUALIST.—*V.* COSMOTHEIC IDEALIST.

I.—The conscious *Subject*, knowing itself as distinct from the facts of its own experience.—*V.* EGO, SUBJECT.

IDEA (*idéa*, *είδος*, *forma*, *species*, image).—**I.** Common

modern usage. (1) In its widest sense, every product of intellectual action, or even every modification; (2) in more restricted use, a mental image of an external object. II. Special usage. (1) Platonic: according to Plato, Ideas are the archetypes of the manifold varieties of existence in the universe. These archetypes belong to the supersensible world, where reality is found, and in the midst of which God dwells; (2) Kantian: in the philosophy of Kant, Ideas are products of the Reason (*Vernunft*), transcending the conceptions of the understanding, being named by him "transcendental ideas." These ideas are three in number—the Soul, the Universe, and God. In the functions of mind they are concerned with the unification of existence. (3) Hegelian: in the system of Hegel, which finds in the dialectic evolution of the categories of the understanding the evolution of all existence as a unity, the Idea is the Absolute towards which the Evolution of being is moving. The Idea, as the Absolute, manifests itself through Nature, then through Spirit, and returns upon itself as the Absolute. The Platonic use was objective, the modern is subjective. The idea was to Plato the essence of a thing: there was no immediate reference to a mind in which it existed. The idea was eternal, and existed independently of the finite minds which contemplated it. In modern usage, on the contrary, *ideal* existence is synonymous with mind-dependent existence.

I. *Common Modern Usage*.—(1) Every product of intellectual action, or even every mental modification. Descartes used the word to designate any impression made upon the brain, but more commonly a mental representation of an object,—“All that is in our mind when we conceive a thing” (Descartes’ *Method*). “It is the term which, I think, serves best to stand for whatsoever is the object of the understanding, when a man thinks; I have used it to express whatever is meant by *phantasm*, *notion*, *species*, or whatever it is which the mind can be employed about in thinking” (Locke’s *Essay*, bk. i. ch. i.). Mill has said:—“The always acute and often profound author of *An Outline of Sematology* (Mr B. H. Smart) justly says: ‘Locke will be much more intelligible if, in the majority of places, we substitute “knowledge of,” for what he calls “the

idea of"" (p. 10). To this Mill adds—"Among the many criticisms of Locke's use of the word *Idea*, this is the only one which, as it appears to me, precisely hits the mark" (*Logic*, i. 154, note, bk. i. ch. vi. sec. 3). (2) A mental image of an external object. Thus, in the passage from Locke just given, it stands for "phantasm," as well as for the object of thought generally. "The word is often applied to any kind of thought or notion or belief; but its proper use is restricted to such thoughts as are *images* of visible objects, whether actually seen and remembered, or compounded by the faculty of imagination" (Taylor's *Elements of Thought*). Thus in Descartes and Locke the use of the term reaches the utmost width compatible with the preservation of its subjective limitation; it is coextensive with conscious experience. In Berkeley it begins to be a little more restricted. At first he uses it in Locke's sense, as equivalent to *phenomenon*: but later he distinguishes between *idea* and *notion*, and says that "the term *idea* would be improper by being extended to signify everything we know or have any notion of" (*Principles of Human Knowledge*, sec. 89). We have a *notion*, not an *idea*, of spirits and of relations. His argument "for the subjectivity or mind-dependence of sensible things rests chiefly on their *ideal* nature, the *esse* of an *idea* being *percepti*. Hume limits the use of the term still further, by distinguishing between *impressions* and *ideas*. "The difference betwixt these consists in the degrees of force and liveliness with which they strike upon the mind, and make their way into our thought or consciousness. Those perceptions which enter with most force and violence we name *impressions*; and under this name I comprehend all our sensations, passions, and emotions, as they make their first appearance in the soul. By *ideas* I mean the first images of these in thinking and reasoning" (*Treatise on Human Nature*, bk. i. pt. i. sec. 1). Spinoza also limited the Cartesian sense, defining *idea* "a concept of the mind" (*Ethics*, pt. ii. def. 3).—The usage of the present day wavers between the earlier or wider usage and that of Hume. *Idea* is used more loosely as coextensive with *phenomenon* or object of consciousness; and more strictly it is limited to the phenomena of Memory and Imagination, and the

conceptions of discursive Thought, the term *sensation* being reserved for the phenomena of perception. Hume's distinction between *Impression* and *Idea* is still accepted in sensational psychology, whether the term is used or not (*cf.* Spencer's "faint states" and "vivid states"). (3) Reid strongly protested against the use of the term *idea* to designate a representation of the object known, as favouring a false view of external perception. He says—"Modern philosophers, as well as the Peripatetics and Epicureans of old, have conceived that external objects cannot be the immediate objects of our thought; that there must be some image of them in the mind itself, in which, as in a mirror, they are seen. And the name *idea*, in the philosophical sense of it, is given to those internal and immediate objects of our thoughts. The external thing is the remote or mediate object; but the *idea*, or image of that object in the mind, is the immediate object, without which we could have no perception, no remembrance, no conception of the mediate object. . . . The *idea* is in the mind itself, and can have no existence but in a mind that thinks, but the remote or mediate object may be something external, as the sun or moon; it may be something past or future; it may be something which never existed. This is the philosophical meaning of the word *idea*; and we may observe that this meaning of the word is built upon a philosophical opinion; for if philosophers had not believed that there are such immediate objects of all our thoughts in the mind, they would never have used the word *idea* to express them. I shall only add that, although I may have occasion to use the word *idea* in this philosophical sense in explaining the opinions of others, I shall have no occasion to use it in expressing my own, because I believe *ideas*, taken in this sense, to be a mere fiction of philosophers. And in the popular meaning of the word, there is the less occasion to use it, because the English words *thought*, *notion*, *apprehension*, answer the purpose as well as the Greek word *idea*, with this advantage, that they are less ambiguous" (*Intellectual Powers*, essay i. ch. i.).

II. *Special Usage*.—(1) *Platonic*: according to Plato, *ideas* were the only objects of science or true knowledge. Things created being in a state of continual flux, there can be no

real knowledge with respect to them. But the divine *ideas*, being eternal and unchangeable, are objects of science properly so called. Philosophy is the upward progress of the soul from the things of sense, which are but the shadows of reality, to the contemplation of their eternal substance and truth, *i.e.*, their *ideas*. These ideas are the *essences* of things, and till we penetrate beyond the manifold of sensible existence to its unity; beyond the many beautiful things, *e.g.*, which we see, to the idea of Beauty (*αὐτὸ τὸ καλόν*) which, hidden to the eye of sense, reveals itself to the eye of the soul, we *know* not anything. Nor can we rest satisfied with the contemplation even of the individual ideas: together they constitute an ideal *world* (*κόσμος*), and till we reach the centre of that world—that Idea which is the unity and source of all the others—we know not perfectly. In the Good, which is more than idea, all existence is summed up: and in its contemplation knowledge is made perfect. Plato says, in the sixth Book of the *Republic*—"In the course of the discussion we have referred to a multitude of things that are beautiful, and good, and so on; and also to an essential beauty, and an essential good, and so on (or, beauty in itself, or good in itself), reducing all those things before regarded as manifold to a single form or entity in each case. The manifold are seen not known; the ideas are known not seen" (Plato's *Republic*, bk. vi. p. 507, Jowett's transl.; Davies and Vaughan's transl., p. 228). The manifold varieties are presented to the eye; the ideas to the intellect, and of these ideas, visible things are only the shadows.

(2) *Kantian*: The term is here applied to the "pure conception of the reason,"—transcendental ideas—(God,—the soul,—the universe),—which are essentially different from the *forms* of the sensory and the *categories* of the understanding. These ideas, as given by pure reason, are only regulative, guiding our intellectual procedure. As given by the practical reason, they are more than regulative, and represent the really existing.

Pure conceptions of the understanding, that is the categories, "do not present objects to the mind, except under sensuous conditions" . . . they may, however, when applied to phenomena . . .

still further removed from objective reality than *categories*; for no phenomena can ever present them to the human mind *in concreto*. They contain a certain perfection, attainable by no possible empirical cognition, and they give to reason a systematic unity, to which the unity of experience attempts to approximate, but can never completely attain" (*Critique of Pure Reason*, Meiklejohn, p. 356). "I understand by idea a necessary conception of reason, to which no corresponding objects can be discovered in the world of sense. Accordingly, the pure conceptions of reason are transcendental ideas. They are conceptions of pure reason, for they regard all empirical cognition as determined by means of an absolute totality of conditions. They are not mere fictions, but natural and necessary products of reason, and have hence a necessary relation to the whole sphere of the exercise of the understanding" (*ib.*, 228). "Although experience presents the occasion and the starting point, it is the transcendental idea of reason which guides it in its pilgrimage, and is the goal of all its struggles" (*ib.*, p. 361).

(3) *Hegelian*: The term is here employed as the designation of the Absolute. "The idea is truth in itself, and for itself the absolute unity of the notion and objectivity. . . . The definition, which declares the Absolute to be the idea, is itself absolute. All former definitions come back to this. The idea is the Truth: for Truth is the correspondence of objectivity with the notion. By that correspondence, however, is not meant the correspondence of external things with my conceptions: for these are only correct conceptions held by me, the individual person. In the idea we have nothing to do with the individual, nor with figurative conceptions, nor with external things. And yet, again, everything actual, in so far as it is true, is the idea, and has its truth by and in virtue of the idea alone. Every individual being is some one aspect of the idea. . . . The idea itself is not to be taken as an idea of something or other, any more than the notion is to be taken as merely a specific notion. The Absolute is the universal and the idea, which, as discerning, or in the act of judgment, specialises itself to the system of specific ideas; which, after . . . to the era

idea where their truth lies" (*Logic of Hegel*, Wallace, pp. 304-5). "The idea may be described in many ways. It may be called reason (and this is the proper philosophical signification of reason); a subject-object; the unity of the ideal and the real, of the finite and the infinite, of soul and body; the possibility which has its actuality in its own self; that by which the nature can be thought only as extant. All these descriptions apply, because the idea contains all the relations of understanding, but contains them in their infinite return and identity in themselves" (*ib.*, p. 306). "The idea is essentially a process, because its identity is the absolute and free identity of the notion, only in so far as it is absolute negativity, and for that reason dialectical. It represents the course or round, in which the notion, in the capacity of universality which is individuality, gives itself the character of objectivity, and of the antithesis to objectivity, and in which this externality, which has the notion for its substance, finds its way back to subjectivity through its immanent dialectic" (*ib.*, p. 308). "The idea as a process runs through three stages in its development. The first form of the idea is life; that is, the idea in the form of immediacy. The second form is that of mediation or differentiation; and this is the idea in the form of knowledge, which appears under the double aspect of the Theoretical and Practical idea. The process of knowledge eventuates in the restoration of the unity enriched by difference. This gives the third form of the idea, the Absolute Idea; which last stage of the logical idea evinces itself to be at the same time really first, and to have a being due to itself alone" (*ib.*, p. 309).

See Trendlenburg, *Platonis De Ideis*; Richter, *De Ideis Platonis*; Hamilton, *Discussions on Philosophy*; Reid's *Works*, app., notes B and C; Dugald Stewart, *Philosophical Essays*, app. ii.; Adam Smith, *Essays on Philosophical Subjects*, p. 119, note; Vertch's *Descartes*, note ii., on *Idea*; Fraser's *Berkeley in Philosophical Classics*, pts. i. and ii.

IDEAL, that which the mind contemplates as a representation (1) of the normal excellence of any being; perfection; (2) in intelligent life, what *ought* to be, in contrast with what exists, the right: (3) in art, the conception present to

the imagination, which the artist tries to depict,—the Beautiful; (4) the representation in a single individual of all the excellencies of an order.

“We call attention to two words which continually recur in this discussion—they are, on the one hand, *nature* or *experience*, on the other, *ideal*. Experience is individual or collective; but the collective is resolved into the individual; the *ideal* is opposed to the individual and to collectiveness: it appears as an original conception of the mind. Nature or experience gives me the occasion for conceiving the *ideal*, but the *ideal* is something entirely different from experience or nature; so that, if we apply it to natural, or even to artificial figures, they cannot fill up the condition of the *ideal* conception, and we are obliged to *imagine* them exact. The word *ideal* corresponds to an absolute and independent idea, and not to a collective one” (Cousin, *The True, Beautiful and Good*).

“Even the Holy One of the Gospels must first be compared with our ideal of moral perfection before we can recognise him as such” (Kant’s *Groundwork*, Abbott’s transl., p. 25)

The *ideal* is to be attained by assembling in one whole the beauties usually seen in different individuals, excluding everything defective, so as to form a type or model of the species. Thus the Apollo Belvedere is the *ideal* of the beauty and proportion of the human frame; the Farnese Hercules is the type of manly strength. This *ideal* can only be attained by following nature. There must be no elements nor combinations but such as nature exhibits. This is the empirical account of the *ideal*.

According to Cicero (*De Oratore*), there is nothing of any kind so fair that there may not be a fairer conceived by the mind. We can conceive of statues more perfect than those of Phidias. Nor did the artist, when he made the statue of Jupiter or Minerva, contemplate any one individual from which to take a likeness; but there was in his mind a form of beauty, gazing on which, he guided his hand and skill in imitation of it. In the philosophy of Plato this form was called *παράδειγμα*. Seneca (*Epist.*, lviii. sec. 15–18) distinguishes between

idéa and *εἶδος*, thus :—when a painter paints a likeness, the original is his *idéa*—the likeness is the *εἶδος* or image. The *εἶδος* is in the work—the *idéa* is before the work. Cicero (*De Invent.*) states that Zeuxis had five of the most beautiful women of Crotona, as models, from which to make up his picture of a perfect beauty, as illustrating the Platonic sense of *παράδειγμα* or the *ideal*. According to this view the *beau ideal* is a type of perfection contemplated by the mind, projected by the imagination, which may never have been realised, how nearly soever it may have been approached in the shape of an actual specimen.

“By *ideal* I understand the idea, not *in concreto* but *in individuo*, as an individual thing, *determinable* or *determined* by the idea alone. . . . What I have termed an *ideal*, was in Plato’s philosophy *an idea of the Divine mind*—an individual object present to its pure intuition, the most perfect of every kind of possible beings, and the archetype of all phenomenal existences” (Kant, *Critique of Pure Reason*, Meiklejohn’s transl., p. 350). “The ideal is therefore the prototype of all things, which, as defective copies (*ectypa*) receive from it the material of their possibility, and approximate to it more or less, though it is impossible that they can ever attain to its perfection” (*ib.*, p. 356). It is therefore simply the sum total of existence in its systematic unity. The hypostatizing of the ideal is God, and the application to it of the categories of the understanding gives rise to the so-called science of Rational Theology. It is the object of the first part of Kant’s *Dialectic* to prove the baselessness of this science, and to show wherein its illusion consists.

IDEAL LEGALITY.—Kant’s phrase to designate the form of moral law as simple or direct command,—“Thou shalt.” Its formula is,—Act from a maxim at all times fit for law universal (*Groundwork of Metaphysic of Ethics*).

IDEALISM, a general term applicable to all theories concerning “external existence,” which make our knowledge of it indirect, by restricting mind to knowledge of its own states. *Realism* is the general term for all theories of external perception which maintain actual knowledge of the external. The

source of the antagonism of these conflicting sets of theories is the separation between consciousness and externality. There are, on the one hand, those facts—(1) that our sensations are subjective states, (2) that we have no power to pass from our own states to the objects supposed to occasion them; on the other hand, these facts (1) that our mental states cannot all be accounted for by simple exercise of our own power, (2) that our sensations are dependent on the sensibility of our own organism, and can be voluntarily repeated by experimental action in the use of our organism. The source of perplexity cannot be removed. Even if we grant the distinction between “external” and “internal,” we cannot bridge the chasm between them; we cannot establish intercommunication. Idealism is a unifying of reality, treating the so-called “external,” as the objectifying of subjective conditions. Idealists maintain that realism is ultimately a reducing of mental phenomena to materialistic conditions, and that it is self-condemned on this account.

Idealism wears a variety of aspects.

1. *Subjective Idealism*.—This regards the subjective phenomena as the only phenomena of which we can be assured. As to an external world, it holds that the existence of an outer world cannot be demonstrated, or even that it is non-existent, the hypothesis of such a world resulting from a tendency to misinterpret mental phenomena. All things known to us are the phenomena included in the succession of our own ideas. The *esse* of what we name external, material, or non-thinking things, is *percepti*. This has also been named Psychological or Phenomenal Idealism; and by Kant “Material Idealism,” in contrast with formal, critical, or transcendental idealism. Subjective idealism is the term applicable to the theories of Berkeley and Fichte (see Kant’s *Critique of Pure Reason*, Meiklejohn, p. 166; supplement xxi., in Rosencranz’s edition of Works; Berkeley, *Principles of Human Knowledge*; Fraser’s *Selections from Berkeley*; Fichte, *Wissenschaftslehre*; Ueberweg’s *History*, ii. 88; Schwogler’s *History*, p. 176).

2. *Critical Idealism*.—Critically distinguishing *à posteriori* from *à priori* phenomena in consciousness, and accounting

à priori forms essential to the recognition of objects,—it is maintained that the objects known are the facts of sensuous experience according to the synthesis determined by the categories of the understanding; therefore “things-in-themselves” cannot be known. This is the position of Kant’s Critical Philosophy. According to this view, the external may be held to exist, as apart from consciousness, but it cannot be known as thus existing,—what is known being only the synthesis of our sensory impressions. The structure of this theory has led to the allegation that Kant is to be classified as an Idealist, and the suggestion has occasioned considerable controversy. That Kant objects to a subjective or “material idealism” appears from the reference above; that he holds to the existence of an outer world is obvious from what he says of sensuous experience, and the dependence of all knowledge upon such experience; but, the positions that the “thing-in-itself” cannot be known, and that mind must in a sense be said to originate nature, favour the allegation that his theory is an Idealism,—a Critical or Transcendental Idealism. The second edition of the *Critique* was modified in many passages bearing on our ignorance of transcendental objects, so as to obviate the suggestion that his philosophy was analogous to that of Berkeley. In the preface to the second edition, he says:—“The only addition . . . consists of a new refutation of psychological *Idealism*. . . . However harmless Idealism may be considered—although in reality it is not so—in regard to the essential ends of metaphysics, it must still remain a scandal to philosophy and to the general human reason, to be obliged to assume as an article of mere belief, the existence of things external to ourselves” (*Critique*, Meiklejohn, xl.). For the leading points in the discussion affecting our interpretation of the Kantian theory of knowledge of the external, see Ueberweg, *History*, ii. 169, and addenda, p. 526; Hutchison Stirling’s *Text-Book to Kant*, commentary, pp. 446–452).

3. *Absolute Idealism*.—According to Hegel, the Absolute as pure immaterial thought manifests itself first in Nature, next in Spirit, and through this returns upon itself. The unity of being is thus essential to the system. The representation of

outer and inner in consciousness as if they were distinct is only the abstract, one-sided representation of the truth. The relation of the two is the real, for there is no reality save in the movement of being in accordance with the logical order of the categories. This is the Absolute Idealism of Hegel.

"The Idea is truth in itself and for itself—the absolute unity of the notion and objectivity. . . . The definition, which declares the Absolute to be the Idea, is itself absolute: all former definitions come back to this. The Idea is the Truth. for Truth is the correspondence of objectivity with the notion. By that correspondence, however, is not meant the correspondence of external things with my conceptions, for these are only correct conceptions held by me, the individual person. In the idea we have nothing to do with the individual, nor with figurative conceptions, nor with external things. And yet, again, everything actual, in so far as it is true, is the Idea, and has its truth by and in virtue of the Idea alone. Every individual being is some one aspect of the Idea. . . . The Absolute is the universal and one idea which, as discerning, or in the act of judgment, specialises itself to the system of specific ideas, which, after all, are constrained by their nature to come back to the one idea where their truth lies" (*Logic of Hegel*, Wallace, p. 304).

IDEATION.—"The word idea denotes an individual idea, and we have not a name for that complex notion which embraces, as one whole, all the different phenomena to which the term idea relates. As we say *sensation*, we might also say *ideation*; it would be a very useful word; and there is no objection to it, except the pedantic habit of decrying a new term. *Sensation* would, in that case, be the general name for one part of our constitution; *ideation* for another." Jas. Mill, *Anal. of Phen. of Human Mind*, ch. ii., 1st ed., vol. i. p. 40. Carpenter (*Prin. of Hum. Phys.*) applies the adjective *ideational* to a state of consciousness excited by a sensation through the instrumentality of the sensorium.

"The basement convolutions of the cerebrum are the central organs of the perceptive consciousness, the portals to intellectual action, where sensory impressions, the intuitions of the

special senses, whether sights, sounds, tastes, smells, or feelings become *idealised and registered*; that is, *perceived, remembered, and associated*; and where, too, the *ideation* of outward *individualities* is effected. . . . *Ideation* is the first step in the intellectual progress of man. *Ideas* are the *pabula* of thought, and form equally a constituent element in the *composite nature* of our animal propensities, and of our emotional and moral feelings. *Ideation* is as essential to the very existence of memory as memory is to the operation of thought. For what, in reality, is memory but the fact of *retained idealised impressions* in the mind? And without these retained idealisations, embodied in the memory as *representative ideas*, where are the materials of thought? and how are the processes of thought to be effected?" (*Jour. of Psych. Med.*, Jan. 1857, pp. 139, 144).

IDENTICAL PROPOSITION.—A proposition is called *identical* whenever the attribute is contained in the subject, so that the subject cannot be conceived as not containing the attribute. Thus, when you say a body is solid, you make an *identical proposition*, because it is impossible to have the idea of body without that of solidity.

"It is Locke, I believe, who introduced, or at least gave currency to the expression *identical proposition*, in philosophic language" (Cousin, *Hist. of Mod. Phil.*, lect. xxiv.). It is, according to Locke, one of the class of "trifling propositions" which "bring no increase to our knowledge." "When we affirm the said term of itself, whether it be barely verbal, or whether it contains any clear and real idea, it shows us nothing but what we must certainly know before" (Locke, *Essay on Human Understanding*, bk. iv. ch. viii. sec. 2). Cf. the distinction between *Analytic* and *Synthetic* Judgments, as defined by Kant (*Critique of Pure Reason*, introd., sec. 4). "Analytic judgments are those in which the connection of the predicate with the subject is cogitated through identity; those in which this connection is cogitated without identity are called synthetic judgments. The former may be called *explicative*, the latter *augmentative* judgments; because the former add in the predicate nothing to the conception of the subject, but only analyse it into its constituent conceptions, which were

thought already in the subject, although in a confused manner; the latter add to our conceptions of the subject and predicate that which was not contained in it, and which no analysis could ever have discovered therein." He gives us an example of the *analytic* judgment—"All bodies are extended," the conception of *extension* being implied in that of *body*, of the *synthetic* judgment—"All bodies are heavy," the predicate here being "something totally different from that which I think in the mere conception of a body."

We must, however, distinguish between *analytic* and *tautologous* judgments. Whilst the *analytic* display the meaning of the subject, and put the same matter in a new form, the *tautologous* only repeat the subject, and give us the same matter, in the same form, as, "Whatever is, is" (Thomson, *Outline of Laws of Thought*, p. 187, 3rd ed.).

IDENTITY (Philosophy of), (*idem*, the same), a term applied by Schelling to his own philosophy, which teaches the identity of thought and being. The doctrine of absolute *identity* teaches that the two elements of thought, objective and subjective, are absolutely one. "By reason," he says, "I mean absolute reason, or reason so far as it is thought as total indifference of subjective and objective." All the differences of spiritual and material existence, even the difference between spirit and matter themselves, are but 'potencies' of that which is in itself *indifferent* or *identical*.

IDENTITY (Personal).—The continuity of personal existence through all changes of experience. As the knowledge of Personality is given in consciousness, that of Personal Identity is secured by aid of memory. "What is called *personal identity*, is our being the same persons from the commencement to the end of life; while the matter of the body, the dispositions, habits, and thoughts of the mind, are continually changing. We feel and know that we are the same. This notion or persuasion of *personal identity* results from memory" (Taylor, *Elements of Thought*).

This looks like confining *personal identity* to the mind. And, indeed, Brown (lect. xi.) changes the phrase *personal identity* into *mental identity*. Locke says (*Essay on Human Under-*

standing, bk. ii. ch. xxvii.):—"To find wherein *personal identity* consists we must consider what person stands for; which, I think, is a thinking intelligent being, that has reason and reflection, and can consider itself as itself, the same thinking thing in different times and places."

Personal identity thus consists in consciousness with memory. "Consciousness is inseparable from thinking, and since it is so, and is *that* which makes everyone to be what he calls *self*, and thereby distinguishes himself from all other thinking beings, in *this alone consists personal identity*, i. e., the sameness of a rational being. And as far as this consciousness can be extended backwards to any past action or thought, so far reaches the *identity* of that person" (*Essay on Human Understanding*, bk. ii. ch. xxvii.).

But Consciousness merely ascertains or indicates *personal identity*, it does not constitute it. Consciousness presupposes *personal identity* as knowledge presupposes truth. Hume accounts for the idea of Identity by the easiness of the transition of the mind from one idea to another in the series. "The smooth and uninterrupted progress of the thought readily deceives the mind, and makes us ascribe our identity to the changeable succession of connected qualities" (*Treatise of Human Nature*, pt. iv. sec. iii.).

On the other hand, Leibnitz (*Theodiciée*) called it a metaphysical communication by which soul and body make up one *suppositum*, which we call a person.

See Butler, *Dissertation on Personal Identity*; Reid, *Intellectual Powers*, essay iii. ch. vi., with note; Stewart, *Elements*, pt. ii. ch. i. sec. 2.—V. PERSONALITY.

IDENTITY (Law, Axiom, or Principle of).—It is usually expressed thus—a thing is what it is; A is A, or $A = A$. Like the principle of contradiction, of which it is the positive expression, it is a necessary law of self-consistent thought. It was attacked by Locke as useless for the increase of knowledge, its only use being to show a man the absurdity he is guilty of, when by circumlocution or equivocal terms he would, in particular instances, deny the same thing of itself (*Essay on Human Understanding*, bk. iv. ch. viii. sec. 2). It was

reinstated by Leibnitz. According to Kant, it is the principle of Analytic judgment.

Hegel, maintaining that all judgment is synthetic, denies the value of the law of Identity for actual thought.

Hamilton, regarding it as the positive expression of the law of Non-Contradiction, says that it is the law of logical Affirmation or Definition (*Lectures on Logic*, i. 81).

IDEOLOGY.—The name given to the analysis of the human mind by Destutt de Tracy (*Elémens d'Ideologie*). The name has come to be applied to the philosophy of the sensational school, including the followers of Condillac—as Cabanis, Garat, and Volney. Of this school, De Tracy is the metaphysician; Cabanis (*Rapports du Physique et de Moral de l'Homme*) is the physiologist; and Volney (*Catechism du Citoyen Français*) is the moralist. Adherents of this school were leading members of the *Académie des Sciences Morales et Politiques*. They also took an active share in political assemblies, in opposition to the views of Napoleon, who suppressed the *Académie*. It was, however, on the motion of De Tracy that the Senate decreed the abdication of the emperor in 1814 (Daniron, *Hist. de Philosoph. en France au 19 siècle*).

“For Locke and his whole school, the study of the understanding is the study of ideas; hence the recent and celebrated expression *ideology*, to designate the science of the human understanding. The source of this expression is in the *Essay on the Human Understanding*, and the ideological school is the natural offspring of Locke” (Cousin, *Hist. of Mod. Phil.*, lect. xvi.).

By a double blunder in philosophy and Greek, *ideologie* (for *idealogie*), a word which could only properly suggest an *à priori* scheme, deducing our knowledge from the intellect, has in France become the name peculiarly distinctive of that philosophy of mind which exclusively derives our knowledge from sensation” (Hamilton, *Edinburgh Review*, Oct. 1830, p. 112).

Destutt de Tracy has distinguished Condillac by the title of *the father of ideology*” (Stewart, *Philosophical Essays*, essay iii.).

IDOSYNCRASY (*idios*, *proprius*; *σύν*, *con*, and *κρâsis*, *mixtio*) means a peculiar temperament of mind or of body. Different persons manifest different inclinations—which if not

natural are partly so, and are traced to some peculiarity in their *temperament*, as well as to the effect of circumstances.

Stewart, in the conclusion of part second of his *Elements*, says he uses temperament as synonymous with *idiosyncrasy*.—*V. TEMPERAMENT.*

IDOL (εἶδωλον, an image, from εἶδος).—Something set up in place of the true and the real. Hence Bacon calls those false appearances by which men are led into error, and prejudices which prevent impartial observation, *idols*. It is thus a figurative expression for *fallacy*. According to Bacon, these idols are four in number :—"The first sort I call *idols* of the nation or tribe ; the second, *idols* of the den or cave ; the third, *idols* of the forum ; and the fourth, *idols* of the theatre" (see *Novum Organum*, bk. i. aph. 38 ; Reid, *Intellectual Powers*, essay vi. ch. viii.)—*V. PREJUDICE.*

IGNORANCE, *ignorantia*, want of knowledge. (1) In an intellectual reference, because of the limits of our intellect,—*Agnosticism* (*q v*). (2) Ethical,—applicable to want of knowledge of facts concerned with action, in consequence of which responsibility is modified. Aristotle (*N. Ethic.*, lib. iii. cap. i.) distinguishes between an action done *through ignorance* (διὰ ἄγνοiαν), and an action done *ignorantly* (ἄγνώων). In the former case the ignorance is the direct cause of the action, in the latter case it is an accident or concomitant. (3) *Juridical*, regarded in two aspects, *ignorantia juris* and *ignorantia facti*. *Ignorantia facti excusat*. Ignorance of what is done excuses, as, when a contract is signed under a wrong impression as to the meaning of the terms. *Ignorantia juris quod quisque tenetur scire neminem excusat*. Every man is supposed to know the laws of the land in which he lives ; and if he transgress any of them, although in ignorance, he is not excused.

ILLATION (*illatum*, from *infero*, to bring in), logical inference.—*V. INFERENCE, INDUCTION.*

ILLCIT.—A term is said in Logic to be used *illicitly* when in a syllogism, although undistributed in the premisses, it is distributed in the conclusion. According as the term so used is the major or minor, there arises the fallacy of *Illicit Major* or *Illicit Minor*.

ILLUMINATI (*illumino*, to enlighten).—Persons of special intellectual attainment and culture. This name was given to the members of a secret society said to exist in Germany and other countries of Europe towards the close of the last century.

ILLUMINATION.—The peculiar intellectual development of the 18th century in France and Germany is variously designated as the *Illumination*, *Enlightenment*, or *Aufklärung*.

In *France*, the movement took the form of extreme materialism, the issue of the sensationalism of Condillac. Its spokesmen were Voltaire, the Encyclopædists, and especially La Mettrie in the *Système de la Nature*. The attitude towards religion was not merely negative, it was a period of sheer atheism.

In *Germany*, this same century was the period of negative Rationalism, the outcome of the extreme subjectivity of the time. All dogma, especially religion, was subjected to the judgment of the individual, and simply rejected if it did not stand the test.—[J.S.]

ILLUSION.—A deceptive appearance as of the representation of an object, occasioned by organic or functional disorder (see Sully's *Illusions*).

IMAGINATION.—The faculty of representation by which the mind keeps before it an image of visible forms. This power is (1) simply reproductive; (2) creative. "*Nihil aliud est imaginari quam rei corporeæ figuram seu imaginem contemplari*" (Descartes, *Medit. Secunda*).

Imagination in its more ordinary exercise is associated with Memory. While a past knowledge is being recalled or remembered, still further, by an exercise of imagination, objects in themselves and their relations are figured to the mind, or represented in consciousness. In advance of this, unseen combinations are presented as visions of the mind. In a higher form of original activity, imagination performs a larger part, contributing to the elevation of intellectual life in the exercise of literary and poetic gift. "*Memory* retains and recalls the past in the form which it assumed when it was previously before the mind. *Imagination* brings up the past in new shapes and

combinations" (M'Cosh, *Typical Forms*). "In so far as ~~idea~~^{image} nation is spontaneity, I sometimes call it also the *productive* imagination, and distinguish it from the *reproductive*, the synthesis of which is subject entirely to empirical laws, those of association namely" (Kant's *Critique of Pure Reason*, Meiklejohn, 93). Imagination is thus a power connected at once with sensuous impression, reproduction of knowledge or memory, and conception, for this last also depends upon imagination. "In truth, it is not images of objects, but schemata, which lie at the foundation of our pure sensuous conceptions. No image could ever be adequate to our conception of a triangle in general. . . . The *image* is a product of the empirical faculty of the productive imagination,—the *schema* of sensuous conceptions (of figures in space, for example) is a product, and, as it were, a monogram of the pure imagination *à priori*, whereby and according to which images must first become possible" (*ib.*, pp 109, 110). "The necessity of imagination towards the possibility of what synthetic processes are involved, is obvious, for through that faculty only can the past be reproduced for summation with the present" (Hutchison Stirling's *Text-Book to Kant*, Reproduction, p. 97). "Imagination holds at once of sense and of intellect, it is sensuous in that it exhibits, and it is intellectual in that it is self-determinant and can exhibit an object, even when no object is presented to it" (*ib.*, *Commentary*, p. 416).

"*Imagination as reproductive* stores the mind with ideal images, constructed, through the medium of attention and memory, out of our immediate perceptions. These images form *types* . . . which help us to begin the important work of reducing our experience to some appreciable degree of unity.

"To understand the nature of *productive or creative imagination*, we must suppose the reproductive process to be already in full operation, that is, we must suppose a number of ideas to be already formed and stored up within the mind. . . . They may now be combined together so as to form new images, which, though composed of the elements given in the original representations, yet are *now* purely mental creations" (Morell, *Psychol.*).

Hamilton says (*Metaphysics*, lect. xlv.), Imagination is not *productive* or *creative*, but merely *plastic*.

According to Wordsworth, "*imagination*, in the sense of the poet, has no reference to images that are merely a faithful copy, existing in the mind, of absent external objects; but is a word of higher import, denoting operations of the mind upon these objects, and processes of creation or composition governed by fixed laws" (Preface to his *Works*, 1836).

To *imagine* in this high and true sense of the word, is to realise the ideal, to make intelligible truths descend into the forms of sensible nature, to represent the invisible by the visible, the infinite by the finite.

Spinoza distinguishes *imagination*, as passive, from understanding, which he regards as active; and traces all error to the neglect of this distinction (cf. Pollock, *Spinoza*, p. 144).

Hunt, *Imagin. and Fancy*; Wordsworth, Pref. to *Lyrical Ballads*; Hamilton's *Metaph*, lect. xxxiii., Tyndall's *Scientific Uses of the Imagination*.

IMITATION (*imitor*, *quasi mimitor*, from *μιμέομαι*. The act of copying according to a model.

Man has been endowed with a propensity to do as he sees others do. This propensity manifests itself in the first instance spontaneously or instinctively. Stewart makes a distinction (*Elements*, vol. iii. ch. ii.) between the *propensity* and the *power* of *imitation*.

The germ of some of the highest discoveries in science has been found in attempts to copy the movements and processes of nature (Reid, *Active Powers*, essay iii. pt. i. ch. ii.).

IMMANENT (*immaneo*, to remain in), that which does not pass out of a certain subject or certain limits; indwelling, in contrast with transcending. "Logicians distinguish two kinds of operations of the mind; the first kind produces no effect without the mind, the last does. The first they call *immanent* acts; the second *transitive*" (Reid, *Intellectual Powers*, essay ii. ch. xiv.; cf. *Correspondence of Dr Reid*, p. 81).

Kant applies the word to the use of the principles of the pure understanding, *immanent* being a valid use of them, as when we conceive of the matter furnished by the senses,

according to our notions of time and space. But when we try to lift ourselves above experience and phenomena, and to conceive of things as they are in themselves, we are making a *transcendent* and illegitimate use of our faculties. "We shall term those principles, the application of which is confined entirely within the limits of possible experience, *immanent*; those, on the other hand, which transgress these limits, we shall call *transcendent* principles" (*Critique of Pure Reason*, Meiklejohn, p. 210).

The doctrine of Spinoza (*Ethic.*, pars. 1. prop. 18) is, *Deus est omnium rerum causa immanens, non vero transiens*,—that is, all that exists, exists in God; and there is no difference in substance between the universe and God.

IMMATERIALISM, the doctrine attributed to Bishop Berkeley, that there is no material substance, and that all being may be reduced to mind ideas.

To attribute to Berkeley a denial of the existence of matter is hardly warranted, though there is much to favour it. He does say that "the existence of external bodies wants proof," and that "the supposition of external bodies is not necessary for the producing of our ideas." But his point was to show that "the philosophical notion of matter involves a contradiction." "He wanted to induce men to settle what the substantial existence of the sensible world could in reason amount to" (Fraser, *Life of Berkeley*, p. 365). "Berkeley's philosophy in its most comprehensive aspect is a philosophy of the causation that is in the universe, rather than a philosophy of the mere material world" (*ib.*, p. 366; see also Fraser's *Berkeley in Philosophical Classics*, where he distinguishes between Berkeley's "Visual Immaterialism," in the *Essay towards a New Theory of Vision* and the *Dialogue on Divine Visual Language*, and his "Universal Immaterialism," in the *Principles of Human Knowledge*).

IMMEDIATE, direct (German, *Unmittelbar*). "Immediate Knowledge" is knowledge of the object or the thing itself, in contrast with knowledge of one thing by the intervention of another. For a criticism of the distinction between *Immediate* and *Mediate* knowledge, see *Logic of Hegel*, Wallace, pp. 103-121.

IMMEDIATE INFERENCE is inference by the comparison or transposition of two terms without the aid of a third or middle term. It thus consists of only two propositions, one premiss, and the conclusion. Immediate Inference is of three kinds,—*Opposition*, *Conversion*, and *Permutation* (*q.v.*).

IMMORTALITY OF THE SOUL.—The doctrine rests upon the assumption that the soul is distinct from the body, and is not affected by the dissolution of the body. How long or in what state it may survive after the death of the body, is not intimated by the term *immortality*. But the arguments to prove that the soul survives the body, all go to favour the belief that it will live for ever (see Plato, *Phædo*).

IMMUTABILITY, impossibility of change. It is applied to the Supreme Being as the Absolute, to denote that there can be no inconstancy, such as change would imply, in character or government.

IMPENETRABILITY.—One of the primary qualities of matter, in virtue of which the same portion of space cannot at the same time be occupied by more than one portion of matter. It is extension, or the quality of occupying space. Locke identifies it with *solidity* (see *Essay*, bk. ii. ch. iv.).

IMPERATIVE (*imperativ*).—The *should* or ought (*sollen*) of moral law. It is the formula of the commandment (*gebot*) of reason. “The representation of an objective principle, so far as it necessitates the will, is called a commandment (of reason); and a formula expressing such is called an *imperative*. An *imperative* commands *hypothetically* or *categorically*. The former expresses that an action is necessary as a mean towards somewhat further; but the latter is such an *imperative* as represents an action to be in itself necessary and without regard had to anything out of and beyond it, *i.e.*, objectively necessary. When we attend to the dissimilar grades of necessitation expressed by the *imperative* they might be called (1) Rules of art, (2) Dictates of prudence, (3) Laws of morality. The first and second are hypothetical imperatives. The third involves the conception of an immediate and objective and universally valid necessity” (Kant, *Groundwork of Metaphysic of Ethics*, ch. ii.). This last gives—

The Categorical Imperative (*Imperativ Kategorisch*).—The direct and absolute command,—*Thou shalt*,—of moral law. The practical reason speaks to us in the *categorical imperative*, that is, the *right* contains the *ought*. The sense of obligation does not spring from regard to the consequences of the action, as likely to be beneficial, but is a primitive and absolute idea of the reason, involving, according to Kant, the power to obey, or not to obey. We are under obligation, therefore we are free. Moral obligation implies freedom.

“An *Imperative* is no more than a formula, expressing the relation betwixt objective laws of volition and the subjective imperfection of particular wills (*e.g.*, the human)” (Kant, *Groundwork of Metaphysics of Ethics*, ch. ii.; Semple, p. 27; Abbot, 43; *Werke*, viii. 38).

“The *Categorical Imperative* is single and one, ‘Act from that maxim only when thou canst will law universal’” (*ib.*, Semple, 34; Abbot, 54; *Werke*, viii. 47).

IMPLICIT.—Equivalent to *Potential* or *Latent* (*q.v.*).

IMPOSSIBLE (The).—That which cannot be, has been distinguished as the *metaphysically* or absolutely *impossible*, or that which implies a contradiction, as to make a square circle, or two straight lines to enclose a space; the *physically impossible*, or that which cannot be brought about by merely physical causes, in accordance with the laws of nature, as the death of the soul; and the *ethically impossible*, or that which cannot be done without going against the dictates of right reason, or the enactments of moral law (*cf.* Whately, *Logic*, app. i.).

IMPRESSION (*imprimo*, to press in, or on).—(1) The change on the nervous system arising from contact of an external object with a bodily organ. (2) The effect produced upon the higher mental sensibility, or sentiment. Thus, we speak of moral *impressions*, religious *impressions*, *impressions* of sublimity and beauty.

Hume divided all modifications of mind into *impressions* and *ideas*. Ideas were *impressions* when first received; and became *ideas* when remembered and reflected on (see Reid, *Intellectual Powers*, essay i. ch. i.).—V. IDEA.

Reid (*Intellectual Powers*, essay ii. ch. ii.) distinguishes the *impressions* made on the organs of sense into *mediate* and *immediate*. The *impressions* made on the sense of touch are *immediate*, the external body and the organ being in contact. The *impressions* made on the ear by sounding bodies are *mediate*, requiring the air and the vibrations of the air to give the sensation of hearing. It may be questioned whether this distinction is well founded. All impression is really immediate, and all the senses may be resolved into that of Touch, contact between the object and the organ being always necessary (see Young, *Intell. Phil.*, Hamilton, *Reid's Works*, p. 104, note).

"Mr Stewart (*Elements*, vol. iii., *addenda* to vol. i. p. 43) seems to think that the word *impression* was first introduced as a *technical* term into the philosophy of mind by Hume. This is not altogether correct; for, besides the instances which Mr Stewart himself adduces of the illustration attempted of the phenomena of memory from the analogy of an *impress* and a *trace*, words corresponding to *impression* were among the ancients familiarly applied to the processes of external perception, imagination, &c., in the Atomistic, the Platonic, the Aristotelian, and the Stoical philosophies; while, among modern psychologists (as Descartes and Gassendi), the term was likewise in common use" (Hamilton, *Reid's Works*, p. 294, note).

IMPULSE (*impello*, to drive on), urging to action.—It is applied to appetite and passion as differing from the authority of reason and conscience, as well as to affections and sentiments dependent on intellectual action. Green distinguishes *Impulse* from *Desire* (*q.v.*).

INABILITY.—*V. ABILITY*.

INADEQUATE.—*V. ADEQUATE*.

INCLINATION (*inclinio*, to lean towards).—Tendency of the nature towards an object. It is synonymous with propensity or with the *penchant* of the French. It is more allied to affection than to appetite. The term "propension" is used by Kant as its equivalent, and all propensions are regarded as affording inducement to act, standing in contrast, however, with law or imperative of reason (*Groundwork of Metaphysic of Ethics*, ch. ii.). Kant does, however, in his *Anthropologie*,

distinguish the terms, making "propension" desire of some special enjoyment, while "inclination" is "habitual sensible desire" (Abbott's *Kant's Theory of Ethics*, 3rd ed., p. 43).

INDEFINITE (*in* and *definitum*), (1) as distinct from the infinite, that the limits of which are not so determined as to be apprehended by us,—the undefined; (2) want of clearness and exactness of discrimination in our thoughts. The *definite* is that of which the form and limits are determined and are apprehended by us. That of which we know not the limits, comes to be regarded as having none; and hence *indefinite* has been confounded with the *infinite*, though these two must be carefully distinguished. The *infinite* is absolute; it is that which has and can have no limit; the *indefinite* is that of which the limits are not known to us. You can suppose it enlarged or diminished, but still it is finite.—*V.* INFINITE

Indefinite or Indesignate Proposition.—Such are propositions whose subjects, though common terms, are not quantified, *e g.*, "Books are instructive" Logicians are now agreed that these propositions are not in strict logical form, and that the subject must be quantified before logic can take cognisance of them.

INDIFFERENCE (Liberty of), a supposed exercise of will unaffected by motive. It has been adduced as illustrative of freedom of Will (*Reid's Works*, Hamilton's ed., p. 601). Even if such a volition were possible, it could have no value in the argument, as having no bearing upon what is implied in freedom of Will in government of motives.

INDIFFERENT.—An action is said to be *indifferent*, that is, neither right nor wrong, when, *considered in itself* or *in specie*, it is neither contrary nor conformable to any moral law. But such an action may become right or wrong, when the end for which it is done is considered. It is then regarded in *individuo*.

INDIRECT (Proof).—*V.* ABSURD.

INDISCERNIBLES (Identity of), a doctrine of the philosophy of Leibnitz, that no two things can be exactly alike. The difference between them is always more than a numerical difference. We may not always be able to discern it, but still there is a difference. Two things radically indiscernible, that

is, having exactly the same qualities, would not be two things, but one. Perfect similitude would be identity.

“To suppose two things *indiscernible*, is to suppose the *same thing* under *two names*” (Leibnitz, *Fourth Paper to Clarke*). “From the principle of the *sufficient reason*, I infer that there cannot be in nature two real beings absolutely *indiscernible*, because if there were, God and nature would act without reason, in treating the one differently from the other, and thus God does not produce two portions of matter perfectly equal and alike” (Leibnitz, *Fifth Paper to Clarke*).

To this Kant objected that two things perfectly alike, if they did not exist in the same place at the same time, would, by this numerical difference, be constituted different individuals.

INDISTINCT.—V. DISTINCT.

INDIVIDUALITY (from *in* and *divido*, to divide), was defined by Porphyry—*Id cuius proprietates alteri simul convenire non possunt*. (1) More general sense,—a being having a distinct, circumscribed existence; (2) the distinctiveness of being belonging to each person.

“An object which is, in the strict and primary sense, one, and cannot be logically divided, is called *individual*” (Whately, *Logic*, bk. ii. ch. v. sec. 5).

An *individual* is not absolutely indivisible; but that which cannot be divided without losing its name and distinctive qualities, that which cannot be parted into several other things of the same nature, is an *individual* whole. Individuality is predicable only of that which has life.

INDIVIDUATION.—The question as to what it is that distinguishes one organised or living being, or one thinking being from all others. The principle of *individuation* was much agitated by the schoolmen. In their barbarous Latin it was called *Hecceitas*, that is, that in virtue of which we say *this* and not *that*; or *Ecceitas*, that of which we say lo! here, and not anywhere else. Peter, as an *individual*, possessed many properties which are *quiddative*, or common to him with others, such as *substantialitas*, *corporeitas*, *animalitas*, *Humanitas*. But he has also a reality, which may be called *Petreitas* or *Peter-*

ness, which marks all the others with a difference, and constitutes him Peter. This is the *Hæcceitas* which constitutes the principle of *individuation*. It was divided into the *extrinsic* and *intrinsic*.

(1) The number of properties which constituted an *individuum extrinsecum*, are enumerated in the following versicle:—

*Forma, figura, locus, tempus, cum nomine, sanguis,
Patria, sunt septem, quæ non habet unum et alter*

You may call Socrates a philosopher, the son of Sophroniscus, an Athenian, the husband of Xantippe, &c., any one of which properties might belong to another man; but the congeries of all these is not to be found but in Socrates.

(2) The *intrinsic* principle of *individuation* is the ultimate reality of the being—*ipsa rei entitas*. In physical substances, the *intrinsic principle of individuation* is *ipsa rei materia et forma cum unione*.

Leibnitz has a dissertation, *De principio Individuationis*, which has been thought to favour nominalism. Yet he maintained that *individual* substances have a real positive existence, independent of any thinking subject.

INDIVIDUALISM, the theory of knowledge, which reduces all to individual sensibility, making it the sole ultimate test of the knowable. It presents the doctrine of relativity in such a form as to make diversities of individual sensibility equally reliable as tests of truth, not only granting the reliability and sufficiency of consciousness as the test of the facts of individual experience, but maintaining equal validity for diverse sensory impressions. In this way, the individual becomes the test of truth, not the universal,—not even the *consensus gentium*. The theory necessarily involves scepticism, by assigning equal authority to contradictory affirmations. This theory is that involved in the commonly received view of the doctrine of Protagoras. Man is the measure of the universe, πάντων χρημάτων μέτρον ἄνθρωπος (Plato, *Theætetus*, 52; Diog. Laert., xi. 51; and also in some types of modern sensationalism).

INDUCTION (ἐπαγωγή, *inductio*).—That form of the reasoning process which proceeds from particulars to generals.

“*Induction* is usually defined to be the process of drawing a

general rule from a sufficient number of particular cases; *deduction* is the converse process of proving that some property belongs to the particular case from the consideration that it comes under a general law. . . . *e.g.*, that all bodies tend to fall towards the earth is a truth which has been obtained from considering by *induction* a number of cases in which that tendency has been displayed; if from this general principle we argue that the stone we throw from our hands will show the same tendency, we *deduce*" (Thomson, *Outline of the Laws of Thought*, 3rd ed., pp. 283-84; see Stewart's *Elements*, pt. II. ch. iv. sec. 2).

Induction is generally said to be of two kinds,—*Perfect* and *Imperfect*. *Perfect* induction, otherwise called *inductio per enumerationem simplicem*, is the observation of *all* the cases singly, and the statement of the result in a single proposition. This was the only kind of induction recognised by Aristotle. Mill, on the contrary, by his definition of induction excludes perfect induction as an "induction improperly so called," "a mere shorthand registration of facts known," and recognises only *imperfect* induction.

"*Induction* is that operation of mind by which we infer that what we know to be true in a particular case or cases, will be true in all cases which resemble the former in certain assignable respects. In other words, *induction* is the process by which we conclude that what is true of certain individuals of a class, is true of the whole class, or that what is true at certain times will be true under similar circumstances at all times" (Mill, *Logic*, bk. iii. ch. ii. sec. 1).

Aristotle (*Metaph.*, xiii. 4) attributes the discovery of induction to Socrates, who, in his search for true ethical notions, inquired what was the common characteristics of things and actions otherwise diverse. Aristotle himself, from the limited view he took of the nature of induction, did little to advance the science. Nor was it till the modern scientific spirit awakened in Bacon that its importance was appreciated. He boldly proclaimed the necessity of substituting for the old Aristotelian and scholastic method of deduction the new method of inductive inquiry. *Spes una est in inductione*

vera (*De Augm. Scient.*, i. 18). Bacon, however, did little more than lay the foundations of induction: he did not himself build the system of inductive logic. This task was reserved for Mill, who not only took a more adequate view than Bacon of the value of deduction and of its relation to induction, but succeeded in formulating the methods of inductive inference.

The *ground* of induction or the warrant on which we conclude that what has happened in certain cases, which have been observed, will also happen in other cases, which have not been observed, is the principle of the Uniformity of Nature, of the constancy of the causal relation among phenomena. In the language of Newton, *Effectuum naturalium ejusdem generis eadem sunt causæ*. The same causes produce the same effects. According to some, our belief in the established order of nature is a primitive judgment, or first principle of knowledge, and the ground of all the knowledge we derive from experience. According to others this belief is a result or inference derived from experience, the highest generalisation from experience. On the different views as to this point, cf. Mill, *Logic*, bk. iii. ch. iii., with Whewell's *Philosophy of Inductive Sciences*, bk. i. ch. vi. On the subject of *induction* in general, see Bacon, *Novum Organum*, *De Augmentis Scientiarum*, Mill, *Logic*, bk. iii.

INDUCTIVE METHODS or CANONS.—These are rules for the legitimate inference of general laws from particular facts observed. Bacon, in the second book of the *Novum Organum*, approximated to a statement of the methods; and Herschel, in his *Discourse on the Study of Natural Philosophy*, stated them “distinctly,” according to Mill. The latter, however, was the first to formulate them clearly and accurately, and to signalise their importance for inductive investigation. He calls them (1) the method of *agreement*, (2) the method of *difference*, (3) the *joint or double method* of agreement and difference, (4) the method of *residues*, and (5) the method of *concomitant variations* (see Mill, *Logic*, bk. iii.; Fowler, *Inductive Logic*, ch. iii., with notes).

INERTIA.—Resistance to change of state. That property of matter by which it would always continue in the same state of rest or motion in which it was put, unless changed by some

external force. The quantity of matter in a body is determined by its quantity of *inertia*, and this is estimated by the quantity of force required to put it in motion at a given rate. Kepler, conceiving the disposition of a body to maintain its state of motion as indicating an exertion of power, prefixed the word *vis* to *inertia*. Leibnitz maintained that matter manifests force in maintaining its state of rest.

"The *vis insita*, or innate force of matter, is a power of resisting by which every body, as much as in it lies, endeavours to persevere in its present state, whether it be of rest or of moving uniformly forward in a straight line. This force is ever proportional to the body whose force it is; and differs nothing from the inactivity of the mass but in our manner of conceiving it. A body, from the inactivity of matter, is not without difficulty put out of its state of rest or motion. Upon which account this *vis insita* may, by a most significant name, be called *vis inertiae*, or force of inactivity" (Newton, *Princip.*, defin. iii.).

IN ESSE: IN POSSE.—Things actually existing are said to be *in esse*; things that are not, but which may be, are said to be *in posse*. The distinction is equivalent to that between *actual* and *potential* (*q.v.*).

INFERENCE (*infero*, to bear, or bring in), of the same derivation as *illusion*. The act of drawing a conclusion from premisses:—"By virtue of one proposition laid down as true, to draw in another as true" (Locke, *Essay on Human Understanding*, bk. iv. ch. xvii. sec. 4). Inference is either *deductive* or *inductive*; and *deductive* inference is either *immediate* or *mediate*, *i.e.*, *Syllogism*.—See these terms.

"Reasoning comprehends *inferring* and *proving*; which are not two different things, but the same thing regarded in *two different points of view*. . . . The word *infer* fixes the mind first on the *premiss*, and then on the *conclusion*, the word *prove*, on the contrary, leads the mind from the conclusion to the premiss. . . . *Proving* is the assigning a reason (or argument) for the support of a *given* proposition; *inferring* is the deduction of a conclusion from *given* premisses" (Whately, *Logic*, bk. iv. ch. iii. sec. 1).

INFIMA SPECIES.—V. SPECIES.

INFINITE (*in, finitum*, unlimited, limitless).—In mathematics the word has a strictly relative meaning; a quantity greater than any assignable quantity is said to be *infinitely* great, and a quantity less than any conceivable quantity is said to be *infinitely* small. But, strictly speaking, it means that which is not only without determinate bounds, but which cannot possibly admit of bound or limit.

“The *Infinite* expresses the absence of all limitation, and is applicable to the one *infinite* Being in all His attributes. The *Absolute* expresses perfect independence both in being and in action, and is applicable to God as self-existent. The *Unconditioned* embraces both, and indicates entire freedom from every restriction, whether in its own nature, or in relation to other beings” (Calderwood, *Philosophy of the Infinite*, p. 37, 3rd ed., p. 179).

As to our knowledge of the *infinite* there are two opposite opinions. According to some, the idea is purely negative. On the other hand, it is said that while the enlarging of the finite can never furnish the idea of the *infinite*, but only of the indefinite, the indefinite is merely the confused apprehension of what may or may not exist. But the idea of the *infinite* is the idea of an objective reality, and is implied as a necessary condition of every other idea (*cf.* Descartes, *Medit.* iii.).

While we cannot *comprehend* the *infinite*, we may *apprehend* it in contrast or relation with the finite. And this is what the common sense of men leads them to rest satisfied with, without attempting the metaphysical difficulty of reconciling the existence of the *infinite* with that of the *finite*. On the question concerning our knowledge of the Infinite, and the discussion which has arisen over it, see ABSOLUTE.

Descartes, *Meditations*; Cousin, *Cours de Phil. et Hist. de la Phil.*; Hamilton, *Discussions on Philosophy*, &c.; Mansel's *Limits of Religious Thought*; Calderwood's *Philosophy of the Infinite*, Herbert Spencer's *First Principles*; Lotze, *Microcosmus*, i. 381–387.

INFLUX (Physical) (*influo*, to flow in), is one of the theories as to our perception of external objects. “The advo-

cates of this scheme maintained that real things are the efficient causes of our perceptions, the word *efficient* being employed to signify that the things, by means of some positive power or inherent virtue which they possessed, were competent to transmit to the mind a knowledge of themselves. . . . External objects were supposed to operate on the nervous system by the transmission of some kind of influence, the nervous system was supposed to carry on the process by the transmission of certain images or representations, and thus our knowledge of external things was supposed to be brought about. The representations alone came before the mind; the things by which they were caused remained occult and unknown" (Ferrier, *Inst. of Metaph.*, p. 482).

INJURY (*injuria*, from *in* and *jus*, neglect or violation of right), in morals and jurisprudence, is the intentional doing of wrong. We may bring *harm* or *evil* upon others without intending it. But *injury* implies intention, and awakens a sense of injustice and indignation when it is done. It is on this difference in the meaning of *harm* and *injury* that Bishop Butler founds the distinction of resentment into *sudden* and *deliberate* (Butler, *Sermons*, viii. and ix.).

INNATE (IDEAS).—*À priori* principles of knowledge and of action. "Innate" implies that the power of recognising such principles is provided for in the constitution of the mind; but not that such principles are a conscious possession from the moment of birth. The term "idea" is unsuitable, first, as suggesting quite improperly an image or representation of an object; second, as failing to suggest the varieties of cognition regarded as *à priori*, forms such as the categories, conceptions, and beliefs. Ideas, as to their origin, have been distinguished by Descartes into *adventitious*, or such as we receive from the objects of external nature, as the idea or notion of a mountain, or a tree; *fictitious*, or such as we frame out of ideas already acquired, as of a golden mountain, or of a tree with golden fruit; and *innate*, or such as are inborn and belong to the mind from its birth, as the idea of God or of immortality. Cicero, in various passages of his treatise *De Natura Deorum*, speaks of the idea of God and of immortality as being *inserted*,

or engraven, or inborn in the mind. "*Intelligi necesse est, esse deos, quoniam insitas eorum, vel potius innatas cognitiones habemus*" (lib. i. sec. 17). In like manner, Origen (*Adv. Celsum*, lib. i. cap. iv.) has said "That men would not be guilty if they did not carry in their mind common notions of morality, *innate* and written in divine letters." It was in this form that Locke (*Essay on Human Understanding*, bk. i.) attacked the doctrine of *innate ideas*. "*What 'idea' stands for.* Before I proceed on to what I have thought on this subject, I must here, in the entrance beg pardon of my reader for the frequent use of the word 'idea,' which he will find in the following treatise. It being that term which I think serves best to stand for whatever is the object of the understanding when a man thinks, I have used to express whatever is meant by phantasm, notion, species, or whatever it is the mind can be employed about in thinking, and I could not avoid frequently using it" (*Essay*, introd., viii.). This wide use of the term has led to much confusion, for there is no theory which affirms "*innate ideas*" in such a wide sense. Locke himself recognised this, when in the first sentence of chapter ii. he referred to the opinion that there are "*innate principles*," "*primary notions*."

Hutcheson (*Oratio Inauguralis, De Naturali hominum Societate*) says:—"All those ideas, perceptions, and judgments, which we form concerning things under the guidance of nature,—at what time soever this happens,—or which, by whatever faculty of our nature, are received necessarily and universally, were called by the ancients *innate*."

Among modern philosophers it would be difficult to name any who held the doctrine in the form in which it has been attacked by Locke. It was certainly not held in that form by Descartes. Veitch (ed. of *Descartes*, note vi.) says:—"By *innate idea*, Descartes meant merely a mental modification which, existing in the mind antecedently to all experience, possesses, however, only a *potential* existence, until, on occasion of experience, it is called forth into *actual* consciousness." In calling some of our ideas *innate*, Descartes and others merely used this word as synonymous with *natural*, and applied it, as Hutcheson thinks the

ancients did, to certain ideas which men, as human or rational beings, *necessarily* and *universally* entertain.

"We are prepared to defend the following propositions in regard to *innate ideas*, or constitutional principles of the mind:—*First*, Negatively, that there are no innate ideas in the mind (1) as images or mental representations; nor (2) as abstract or general notions; nor (3) as principles of thought, belief, or action before the consciousness, as principles. But, *Second*, Positively (1) that there are constitutional principles operating in the mind, though not before the consciousness, as general principles; (2) that these come forth into consciousness as individual (not general) cognitions or judgments, and (3) that these individual exercises, when carefully inducted, but only when so, give us primitive or philosophic truths. It follows that, while these native principles operate in the mind spontaneously, we are entitled to use them reflexly in philosophic or theologic speculation only after having determined their nature by abstraction and generalisation" (M'Cosh, *Method of Divine Government*, p. 508, 7th ed.). Recently the term *connate* (*q.v.*) has been employed in preference to the older term *innate*. Mr Sully (*Outlines of Psychology*, p. 60) applies it to our "inherited tendencies or dispositions to think, feel, and act in particular ways." This is the significance attached by the Evolution school to what are by others regarded as innate principles, intuitively known. Such "tendencies" are the outcome of the experience of the race; and in this sense Spencer would allow that moral and intellectual principles, while they are the result of a long course of evolution in the race, are "intuitive" to the individual. For Lotze's view of *innate ideas*, see *Microcosmus*, i. 236, Engl. transl.

INSTINCT (*ἐν* or *ἐντός* and *στίζω*, *intus pingo*), an internal stimulus. Literally, immediate stimulus from within. The word carries an acknowledgment of ignorance as to the exact nature of the stimulating power. It applies to an impulse quite apart from the reasoning process in us, and which is independent of the lessons of experience.

It has been applied to plants as well as to animals; and may be defined "the power or energy by which all organised forms

are preserved in the individual, or continued in the species" It is more common, however, to consider *instinct* as belonging to animals. "By *instinct* I mean a natural blind impulse to certain actions without having any end in view, without deliberation, and very often without any conception of what we do" (Reid, *Active Powers*, essay iii. pt. 1. ch. ii.). "A propensity prior to experience and independent of instruction" (Paley's *Natural Theology*, ch. xviii.). "A blind tendency to some mode of action independent of any consideration on the part of the agent, of the end to which the action leads" (Whately, *Tract on Instinct*).

Recent discoveries as to (1) the large development of the lobes of special senses at the base of the brain, (2) the co-ordination of the sensory and motor nerves in the subordinate nerve centres, and prominently in the brain, have cleared away a considerable amount of the obscurity as to the action of the lower animals, which made references to instinct carry an admission of superiority on the part of these animals.

Superiority of some animals in special senses is clearly established. More particularly, in the olfactory lobe the most of the quadrupeds are superior to man. They are capable of detecting in this way what men cannot recognise, and have thereby means of guiding their movements which are not at our disposal. So do many animals excel man in power of vision, being sensitive to the action of light in a much higher degree. This is true of fishes and birds

In advance of this, however, increased knowledge concerning the arrangements and relations of sensory and motor nerves, and concerning the internal structure of the cerebrum, has carried us greatly further in interpretation of many actions of animals, which we have hitherto referred to some occult power, regarded as involving a wonderful approach to the exercise of intelligence in us. By excitation of a sensory nerve, a combination of sensory and motor nerves is brought into action, and these are so co-ordinated as to provide for action which in our life we have been accustomed to refer to intelligence. We thus find that the prevailing thought of former times, sanctioned by our use of the term "*instinct*," which was the cover for our ignor-

ance, was doubly wrong—first, implying often an exercise of intelligence on our part when there was in reality none ; and second, the transference of this error to the life of lower animals, as if by similar phenomena it were proved that they must be possessed either of intelligence similar to ours, or of a power even more mysterious. Thus, what we describe as “the intelligent look” of an animal is nothing more than the excitation of the sensory and motor system, under the action of some external occurrence which has induced the state. What we regard in the bark of a dog, as a warning of the approach of strangers, is only the effect of sensory excitation.

The leaders in this line of research have been Hitzig, Ferrier, Hughlings Jackson. See Carpenter's *Mental Physiology*, Calderwood's *Relations of Mind and Brain*, Romanes on *Animal Intelligence*.

Much more difficult, and quite beyond the range of recent investigations into brain action, are the phenomena which seem to indicate adaptation of means to ends in a manner impossible to us, save by action of intelligent purpose. And the perplexity is considerably increased by the very striking fact, that these phenomena are observed in the activity of insects, even more than in the case of animals of higher orders. Recent observations, carefully repeated, recorded, and compared, have made us familiar with wonderful adaptation to wants and circumstances in the history of bees, wasps, and specially of ants. These forms of action seem quite distinct from those which can be accounted for by simple reference to co-ordinated action of sensory and motor nerves through a nerve centre. They lead more naturally into the hypothesis of some vital instinct, wearing the aspect of functional activity peculiar to the order of life concerned. Ants are proved to communicate with each other ; to guide a selected group from the nest to stores of food ; to carry out of the nest their young, lay them in order in the sunshine, and carry them all back again before sundown ; to store corn in granaries, and when it has been wet by long continuance of rain, to carry out the grain, spread it, turn it, and carry it back when dried. These facts greatly surpass the ordinary occupations of any of the

more highly organised animals, even those which most closely approximate in structure to the human form. They give ample warrant for the remark of Charles Darwin, that "the brain of an ant is the most wonderful point of matter in creation." The occupations recorded are connected with their food and care of the young, and they are most startling in the case of those ants which store their food. Nothing we know of brain-organisation can help us to say what "instinct" really implies as a power capable of accomplishing results such as those described.

The definition of instinct which makes it imply adaptation of means to ends, accomplished as well by an animal the first time without instruction as after repeated practice, is hardly sufficient to meet the requirements, for it applies as much to the running of the chick, which we could not name instinct, as to the building of a nest. On the other hand, we must include in our view of instinct the possibility of acquisition in the history of a species.

"We have every reason to believe that the power of specialised *instincts* is transmitted from one generation to another, and, where the circumstances favour it, goes on increasing from age to age in intensity, and in particular adaptations to the purposes demanded. All domesticated animals were originally wild; but when once tamed, the offspring in the next generation partake of the domesticated character by a specialised instinct. The case is the same with animals trained to particular purposes. The young pointer signals the game the very first time he takes the field; the young watch-dog barks at a stranger without ever being taught to do so. All confirmed habits which become a part of the animal nature seem to be imparted by hereditary descent; and thus what *seems* to be an original instinct may, after all, be but the accumulated growth and experience of many generations" (Morell, *Introd. to Men. Phil.*; Lubbock, *Ants, Bees, and Wasps*, International Scientific Series; M'Cook, *The Agricultural Ant of Texas*; and *The Honey Ants and the Occident Ants*; Calderwood, *Relations of Mind and Brain*, ch. vii.; Romanes, *Animal Intelligence*).

INTEGRATION.—V. DIFFERENTIATION, EVOLUTION.

INTELLECT (*intelligo*, to choose between, to perceive a difference),—(1) more exactly, the understanding regarded as a power of comparison; (2) more widely, the whole rational nature of man.

“The term *intellect* is derived from a verb (*intelligere*), which signifies to *understand*, but the term itself is usually so applied as to imply a faculty which recognises principles explicitly as well as implicitly; and abstract as well as applied; and therefore agrees with the reason rather than the understanding; and the same extent of signification belongs to the adjective intellectual” (Whewell, *Elements of Morality*, introd.).

Intellect, *sensitivity*, and *will* are the three heads under which the powers and capacities of the human mind are now generally arranged. “It is by those powers and faculties which compose that part of his nature, commonly called his *intellect* or *understanding*, that man acquires his knowledge of external objects; that he investigates truth in the sciences; that he combines means in order to attain the ends he has in view; and that he imparts to his fellow-creatures the acquisitions he has made” (Stewart, *Active and Moral Powers*, introd.).

The *intellectual* powers are commonly distinguished from the *moral* powers on account of the need for distinguishing between the intellectual life as such and the moral life, as that is concerned with self-direction under moral law. But the two are not capable of being separated, inasmuch as there can be no moral life without intellectual, for intellectual power necessarily enters into the action of moral life.

When the moral powers are designated *active*, as by Reid and Stewart, it is meant only to intimate that these powers, whether impulsive or intellectual, are powers which prompt and regulate actions.

Intellect and *Intelligence* are commonly used as synonymous. But Hamilton (*Reid's Works*, note A, sec. 5) says:—By Aristotle, *voûs* is used to denote—

“1. Our higher faculties of thought and knowledge.

“2. The faculty, habit, or place of principles, that is, of self-evident and self-evidencing notions and judgments.

“The schoolmen, following Boethius, translated it by *intel-*

lectus and *intelligentia*; and some of them appropriated the former of these terms to its first or general signification, the latter to its second or special."—V. REASON, UNDERSTANDING.

Aristotle distinguished *intellectus patiens* from *intellectus agens*. The former, perishing with the body, involves the action of the senses, imagination, and memory, as these furnish the matter of knowledge; the latter, separable from the body, and eternal, gives that knowledge form. Under the impressions of the senses the mind is passive, but while external things rapidly pass, imagination does not allow them altogether to escape, but the knowledge of them is retained by the memory. But this knowledge, being the knowledge of singulars, cannot give universal notions, but merely generalised ones. The *intellectus agens*, however, proceeding upon the information furnished by the senses, actually evolves the idea which the *intellectus patiens* potentially possessed. His illustration is, that as light makes potentially existing colour, actually to be, so the *intellectus agens* converts into actuality, and brings, as it were, to a new life, whatever was discovered or collected by the *intellectus patiens*. As the senses receive the forms of things expressed in matter, the *intellect* comprehends the universal form, which, free from the changes of matter, is really prior to it and underlies the production of it as cause. The common illustration of Aristotle is that while the senses perceive the form of a thing, as it is τὸ σιμόν, or a height; the *intellect* has knowledge of it as implying τῷ κοίλῳ, a hollow, out of which the height was produced.

He thus introduces, even within the νοῦς, the universal distinction between *form* and *matter*, *actual* and *potential*. The νοῦς is, on the one hand, passive and recipient; on the other, it is active and creative. It *creates* the world of its knowledge; for the *form* of that world is the work or manifestation of intellect. "Thus reason is, on the one hand, of such a character as to *become* all things; on the other hand, of such a nature as to *create* all things, acting much in the same way as some positive quality, such, for instance, as light; for light also in a way creates actual out of potential colour" (*De Anima*, bk. ii. ch. v. sec. 1).

Thomas Aquinas retains the distinction between the *intellect*

passive and the *intellect active*; but with him the active or creative intellect becomes merely the power of generalising or abstracting. Sense knows the individual, *intellect* the universal. You see a triangle, but you rise to the idea of triangularity. It is this power of generalising which specialises man and makes him what he is,—*intelligent* (cf. Wallace's *Introd. to De Anima*, pp. 97–116).

INTENSION.—V. COMPREHENSION.

INTENTION (*in-tendo*, to stretch towards).—(1) Purpose cherished within, inoperative; (2) purpose as directing the use of means for the attainment of a selected end. In morals and in law, intention means that act of the mind by which we contemplate and design the accomplishment of some end. Both in law and in morals, *intention*, according as it is right or wrong, good or bad, affects the character of the action following and the responsibility of the agent.

Intention (First and Second) in Logic.

“Nouns of the *first intention*,” says Aquinas, “are those which are imposed upon things as such, that conception alone intervening, by which the mind is carried immediately to the thing itself. Such are *man* and *stone*. But nouns of the *second intention* are those which are imposed upon things not in virtue of what they are in themselves, but in virtue of their being subject to the *intention* which the mind makes concerning them; as, when we say that man is a *species*, and animal a *genus*.”

INTEREST.—By Interest, as a motive, is usually meant the happiness of the individual. So Butler applies the term *interested* to actions done from self-love. He censures the “confusion of calling actions interested which are done in contradiction to the most manifest known interest, merely for the gratification of a present passion. . . . The most natural way of speaking plainly is, to call . . . the actions proceeding from [self-love] interested; and to say of [those referred to in last sentence] that they are not love to ourselves, but movements towards something external,—honour, power, the harm or good of another. And that the pursuit of these external objects, so far as it proceeds from these movements (for it may proceed from self-love) is no otherwise interested, than as every

action of every creature must, from the nature of the thing, be ; for no one can act but from a desire, or choice, or preference of his own" (Preface to *Sermons*).

According to Kant, "*Interest* is that by which reason becomes practical, *i.e.*, a cause determining the will. Hence we say of rational beings only that they take an interest in all things ; irrational beings only feel sensual appetites. Reason takes a direct interest in action then only when the universal validity of its maxims is alone sufficient to determine the will. Such an interest alone is pure" (*Critique of Practical Reason*, Abbot, p. 116, note ; Semple, p. 73).

INTERNAL or INNER SENSE.—*V. REFLECTION.*

INTERPRETATION of NATURE.—"There are," says Bacon (*Nov. Org.*, bk. i. aph. 19), "two ways, and can be only two, of seeking and finding truth. One springs at once from the sense, and from particulars, to the most general axioms ; and from principles thus obtained, and their truth assumed as a fixed point, judges and invents intermediate axioms. This is the way now in use. The other obtains its axioms from the sense and from particulars, by a connected and gradual progress, so as to arrive, in the last place, at the most general truths. This is the true way, as yet untried." "The former set of doctrines we call," he says (aph. 26), "for the sake of clearness, '*Anticipation of Nature*,' the latter the '*Interpretation of Nature*.'"

INTROSPECTION, looking within,—the exercise in which consciousness turns upon itself,—or attention is directed on the mind's own states. It is a mode, not a method of philosophising. The method is Induction, the mode in this is observation of internal experience. Consciousness supplies the data, attention concentrates on our possessions, and by this mode the knowledge obtained by the inductive method may proceed.—*V. REFLECTION.*

INTUITION (from *intueor*, to behold).—Immediate knowledge in contrast with mediate, direct perceiving or beholding. German, *Anschaung*, *Vorstellung*,—the presentation of the object, so that it is directly seen. It applies (1) to the presentations of the senses, sensuous experience is intuition, supplying "the manifold of sense," the lower intuitions ; (2) to the

presentations of the Reason as the source of primary truth, presenting truths self-evident, necessary, and universal,—the higher intuitions supplying the first principles of knowledge. These two classes of intuitions are at the opposite extremes, the one supplying the data coming through the sensory; the other, the first principles coming from the nature of intelligence itself. In the midst is the whole work of discursive thought, which arranges, classifies, generalises, and systematises. The higher intuitions are *à priori*, but *à priori* is a term of much wider range, including the forms of the understanding which are the conditions of mediate knowledge.

Leibnitz distinguished “knowledge” (*cognitio*) into intuitive and symbolical.

Kant, treating the manifold of sense as the matter of knowledge, applies the term intuition to the presentation in consciousness of any sensuous phenomenon, including the conditions under which they are perceived. That presentation which can be given previously to all thought, is called “intuition” (*Critique of Pure Reason*, Meiklejohn, p. 81). “Intuition” is thus the translation of Kant’s term for perception. Space and Time are *intuitions* of sense.

“The perceptions of sense are immediate, those of the understanding mediate only; sense refers its perceptions directly and immediately to an object. Hence the perception is singular, incomplex, and immediate, *i.e.*, is *intuition*. When I see a star, or hear the tones of a harp, the perceptions are immediate, incomplex, and intuitive. This is the good old logical meaning of the word *intuition*. In our philosophic writings, however, *intuitive* and *intuition* have come to be applied solely to propositions; it is here extended to the first elements of perception, whence such propositions spring. Again, *intuition*, in English, is restricted to perceptions *à priori*; but the established logical use and wont applies the word to every incomplex representation whatever; and it is left for further and more deep inquiry to ascertain what *intuitions* are founded on observation and experience, and what arise from *à priori* sources” (Semple, introd. to *Metaphysics of Ethics*).

Thus its scope is extended to include all *immediate* as opposed

to *mediate* knowledge. Kant speaks, *e.g.*, of the *intuitive* understanding of God, as opposed to the *discursive* understanding of man. This is the general English use of the term. Thus Locke (*Essay on Human Understanding*, bk. iv. ch. ii. sec. 1):—"Sometimes the mind perceives the agreement or disagreement of two ideas immediately by themselves, without the intervention of any other; and this, I think, we may call *intuitive* knowledge. For in this the mind is at no pains of proving or examining, but perceives the truth as the eye doth the light, only by being directed towards it. Thus, the mind perceives that white is not black, that a circle is not a triangle, that three are more than two, and equal to one and two."

"*Intuition* is used in the extent of the German *Anschauung*, to include all the products of the perceptive (external or internal) and imaginative faculties; every act of consciousness, in short, of which the immediate object is an *individual*, thing, act, or state of mind, presented under the condition of distinct existence in space or time" (Mansel, *Proleg. Log.*, p. 9, note).

On the difference between knowledge as *intuitive*, *immediate*, or *presentative*, and as *mediate* or *representative*, see Hamilton, *Reid's Works*, note B.

INTUITIONALISM.—The theory, especially in ethics, which maintains that moral laws are first principles *self-evident* to reason. As an ethical theory, it is opposed to *Utilitarianism*. As designations, however, the former refers to the mode of recognition of moral principles, the latter to the end of conduct. For a presentation of Intuitionism (in ethics), see Price's *Review*; Reid's *Active Powers*; M'Cosh's *Method of Divine Government*; Calderwood's *Handbook of Moral Philosophy*; Noah Porter's *Elements of Moral Science*. For a criticism, see Sidgwick's *Method of Ethics*. Sidgwick himself seeks a reconciliation of Intuitionism and Utilitarianism.

INVENTION (*invenio*), to find the construction of something which has not before existed. Discovery is the making manifest something which hitherto has been unknown. There is a true distinction between the *invention* of Art, the *discoveries* of Science.

In Locke and his contemporaries, to say nothing of the older

writers, to *invent* is currently used for to *discover*. Thus Bacon says, "Logic does not pretend to *invent* science, or the axioms of sciences, but passes it over with a *cuique in sua arte credendum*" (*Adv. of Learning*).

IRONY (*εἰρωνεία*, dissimulation), ignorance affected in order to provoke or confound an antagonist. It was very much employed by Socrates against the Sophists (see Zeller, *Socrates and the Socratic Schools*, Eng. transl., p. 126). "Irony often consists in disdaining qualities that are held in esteem, and this sort of thing Socrates used to do" (Aristotle, *N. Ethics*, bk iv. ch. vii. sec 14).

JUDGMENT is the term applied (1) to the act of comparison, (2) to its result. Comparison may be more or less complex. It may be (1) the comparison of individual qualities, the result being the formation of a *Concept*; (2) the comparison of concepts, the result being the affirmation of their agreement or the reverse, or what is strictly called a *Judgment*; (3) the comparison of Judgments themselves, the result being an *Inference*. All these are instances of one and the same operation, viz., Judgment or Comparison, though only the second is called *Judgment*.

The Judgment (called, when expressed in language, the *Proposition*), consists of three parts: the *Subject*, *Predicate*, and *Copula* (*q.v.*).

There are two main views as to the *Nature* of Judgment (1) the *Attributive* view, (2) the *Equational* view.

(1) The *Attributive* theory is that of Aristotle and of most subsequent logicians. On this view, the Subject is to be taken extensively and the predicate intensively, and the judgment is to be regarded as an assertion or denial that the individual or class denoted by the subject-term possesses the attribute or attributes connoted by the predicate-term.

(2) The *Equational* theory is upheld by Jevons and others. It takes both the Subject and Predicate in an extensive sense, and regards the Judgment as an assertion of the *co-extension* of the *classes* denoted by the Subject and Predicate terms respectively.

Judgments have been classified with reference to (1) *Quantity*, (2) *Quality*, (3) *Modality*.

They have further been classified as *Analytic*, *Synthetic*, and *Identical*, or *Tautologous* (*q.v.*) (see Ueberwig, *System of Logic* Lindsay's transl., pt. iv. pp. 187–224, Lindsay's app., A and B) —V. PROPOSITION.—[J. S.]

JUDGMENT as opposed to *Knowledge* (Locke).—V. KNOWLEDGE.

JURISPRUDENCE (*jurisprudentia*), the science of rights, resting on the science of the right. Personal rights are based upon what is right in conduct.

Jurisprudence is distinguished into universal and particular “The former relates to the science of law in general, and investigates the principles which are common to all positive systems of law, apart from the local, partial, and accidental circumstances and peculiarities by which these systems respectively are distinguished from one another. Particular *jurisprudence* treats of the laws of particular states; which laws are, or at least profess to be, the rules and principles of universal *jurisprudence* itself, specially developed and applied.”

There is a close connection between *jurisprudence* and *moral philosophy*. Both rest upon the great law of right and wrong as made known by the light of nature. But while *moral philosophy* treats of that law in all its extent, *jurisprudence* deals with it only in so far as the law of nature has been recognised in the law of nations or in the positive institutions of society. Jurisprudence has special reference to social duty. It treats almost exclusively of duties of justice, when made the subject of positive law, enforced by external sanctions.

The sphere of morality is vastly wider than that of jurisprudence; the former embracing all that is *right*, the latter only particular *rights* realised or vested in particular persons.

(Grotius, *De Jure Belli et Pacis*, Puffendorf, *De Officio Hominis et Civis*; Leibnitz, *Jurisprudentia*; Montesquieu, *Spirit of Laws*; Mackintosh, *Discourse of the Law of Nature and of Nations*; Bentham, *Introd. to Principles of Morals and Legislation*; Austin, *The Province of Jurisprudence Determined*; Lorimer's *Institutes of Law*.)

JUSTICE (*δικαιοσύνη*, *justitia*).—The equal between man and man—(1) grounded on equal subjection to moral law, and

sequent equality of rights among men ; or (2) founded upon natural relations or mutual contract. Justice is one of the four cardinal virtues of ancient philosophy. By the Pythagoreans, and also by Plato, it was regarded as including all human virtue or duty. It consists, Cicero says (*De Finibus*, b. v. cap. 23), *in sum cuique tribuendo*, in according to every one his right. Under Jurisprudence, *justice* (τὸ νομικόν) means what positive law requires ; equity (τὸ ἴσον), what is fair and right in the circumstances of every particular case. *Justice* is not founded in public or positive law, as Hobbes and others hold, but in natural or ethical law, determining the right.

"To say that there is nothing just or unjust but what is commanded or prohibited by positive laws," remarks Montesquieu (*Spirit of Laws*), "is like saying that the radii of a circle were not equal till you had drawn the circumference."

According to Aristotle, Justice, in its narrower meaning, is either *distributive* or *commutative*. The former relates to the allotment of honour, money, &c., to different members of the community. Its essence is *proportion* ; for if the persons are unequal, the shares must also be unequal. The latter obtains with reference to contracts and other transactions between members of the community. It presupposes the equal relation of the parties, and its rule is *equality* (see Aristotle, *N. Ethics*, bk. v. ; cf. Lorimer, *Institutes of Law*).

Plato, *Republic*, iv. 432 ; Aristotle, *N. Ethics*, bk. v. ; Cicero, *De Finibus*. See also Hume, *Essay* iii. and app. iii. ; Mill, *Utilitarianism*, ch. v. ; Sidgwick, *Methods of Ethics*, bk. iii. ch. v.—*V. RIGHT, DUTY, EQUITY.*

KINDS (Natural).—According to Mill, there are in nature real *Kinds*, or classes, which are "distinguished from all other classes by an indeterminate multitude of properties not derivable from another" (*Logic*, vol. i. bk. i. ch. vii. sec. 4). Every proposition by which anything is asserted of a kind affirms an uniformity of coexistence" (*ib.*, vol. ii. bk. iii. ch. xiii. sec. 2).

KINGDOM OF ENDS.—*V. END.*

KNOWLEDGE (γνῶσις, *cognitio*).—A general term, including every product of intellectual activity, whether percep-

tion, comparison, or reasoning. While characteristic of consciousness, it wears different aspects, according to the several forms of acquisitive power. Knowledge is simple or complex, according as it is concerned with a single thing, or with relations. It is immediate or mediate, according as the thing itself is known, or knowledge is acquired through some intervening representation or process.

Locke's distinction between *Knowledge* and *Judgment* is peculiar to himself:—"Knowledge is the perception of the connection and agreement, or disagreement and repugnancy of any of our ideas. In this alone it consists. Where this perception is there is *knowledge*, and where it is not there, though we may fancy, guess, or believe, yet we always come short of *knowledge*" (Locke, *Essay on Human Understanding*, bk. iv. ch. i. sec. 2). And in ch. xiv. sec. 4, he says:—"The mind has two faculties conversant about truth and falsehood. *First, knowledge*, whereby it certainly perceives, and is undoubtedly satisfied of the agreement or disagreement of any ideas. *Secondly, judgment*, which is the putting ideas together, or separating them from one another in the mind, when their certain agreement or disagreement is not perceived but presumed to be so."

Knowledge supposes a *being* who knows, an *object* known, and a *relation* determined between the knowing being and the known object. This relation, occasioned by the mind's activity, is the act of knowledge; the content of consciousness, consequent on this relation, is the knowledge. Truth may be defined to be the conformity of our thoughts with the nature of its object. *Certitude* is thus either immediately known existence, or truth brought methodically to the human intelligence; that is, conducted from facts to generalisations, or from principle to principle, or given in that which is evident of itself.

Leibnitz distinguished *knowledge* as either *intuitive* or *symbolical*. When I behold a triangle actually delineated, and think of it as a figure with three sides and three angles, &c., according to the idea of it in my mind, my *knowledge* is *intuitive*. But when I use the word triangle, and know what it means without explicating all that is contained in the idea

of it, my knowledge is blind or *symbolical* (Leibnitz, *De Cognitione*, &c. ; Wolf, *Psychol. Empir.*).

"A thing is known *immediately* or *proximately*, when we cognise it *in itself*, *mediately* or *remotely*, when we cognise it *in or through something numerically different from itself*. Immediate cognition, that is, the knowledge of a thing in itself, involves the *fact* of its existence ; mediate cognition, that is, the knowledge of a thing in or through something not itself, involves only the *possibility* of its existence.

"An immediate cognition, inasmuch as the thing known is *itself presented* to observation, may be called a *presentative*, and inasmuch as the thing presented is, as it were *viewed by the mind face to face*, may be called an *intuitive* cognition. A mediate cognition, inasmuch as the thing known is *mirrored to the mind in a vicarious representation*, may be called a *representative* cognition.

"A thing known is an *object* of knowledge.

"In a *presentative* or immediate cognition there is *one sole object* ; the thing (immediately) known and the thing existing being one and the same. In a *representative* or mediate cognition there may be discriminated *two objects*, the thing (immediately) known and the thing existing being numerically different.

"A thing known *in itself* is the (sole) *presentative* or *intuitive object* of knowledge, or the (sole) object of a *presentative* or *intuitive knowledge*. A thing known *in and through something else* is the *primary, mediate, remote, real, existent, or represented object* of (mediate knowledge)—*objectum quod* ; and a thing *through which something else is known* is the *secondary, immediate, proximate, ideal, vicarious, or representative object* of (mediate) knowledge—*objectum quo* or *per quod*. The former may likewise be styled—*objectum entitativum*" (Hamilton, *Reid's Works*, note B, sec. 1).

Hamilton distinguishes between *knowledge* and *belief*. The ultimate principles upon which knowledge rests are incomprehensible or inexplicable ; they cannot be known, but must be believed (see *Lectures on Metaphysics*, i. 270 ; *Discussions*, p. 86 ; cf. Fraser's *Berkeley in Philosophical Classics*, concluding chapter).—V. IMMEDIATE, INTUITIVE.

LANGUAGE.—Expression of thought, feeling, and purpose, spoken or written. The ends of language are (1) the preservation of our own thoughts, (2) their communication to others, and (3) economy of thought (*cf.* Locke, *Essay on Human Understanding*, bk. iii. ch. x. sec. 23, and bk. iii., *passim*; also Max Muller, *Lectures on the Origin of Language*).

LATENT MODIFICATIONS OF MIND, movements of mind not present in consciousness, or not observed as present, nevertheless inferred as really occurring, because apparently essential to what is consciously done. Hamilton dwells on the possibility of such movements. He recognises three degrees of mental latency:—(1) All knowledge retained out of consciousness; (2) habits of action of which the mind is wholly unconscious in its ordinary state, but which are revealed to consciousness in certain extraordinary exaltations of its power, *e.g.*, memory of languages restored during fever; and (3) mental modifications of which we are unconscious, but which manifest their existence by effects of which we are conscious—“When we hear the distant murmur of the sea—this is a sum made up of parts—and if the noise of each wave made no impression on our sense, the noise of the sea, which is the result, would not be realised.”

In like manner, one thought rises after another whose consecution we cannot trace to conscious association with the preceding, but both are associated with an intermediate thought which, though latent at the time, is suggested by the first, and in turn suggests the second thought. If a number of balls be placed in a line, and the cue at the end of the line struck, motion will be manifested by the ball at the other end, but not by the intermediate balls. Something like this occurs in the train of thought (*Metaphysics*, i. 355).—V. Morell's *Introd. to Mental Philosophy*, pt. i. ch. iii. The same phenomenon on its physiological side is called *unconscious cerebration*. See Carpenter's *Mental Physiology*.

LAW (Anglo-Saxon, from verb signifying “to lay down,”—the expression of a systematised order of events. The significance of such expression varies according to the diversity of sphere in which it applies—(1) **PHYSICAL**, an established

sequence of material phenomena; (2) INTELLECTUAL, a recognised condition of rational procedure for attainment of truth, and, more widely, applicable to psychology as a whole, an order of sequence in mental phenomena; (3) MORAL, an imperative or direct command, indicating right action, and expressing the will of the moral governor, (a) according to some, a necessary and universal principle of rational life self-evident to the mind, (b) according to others, an induction from experience affecting personal and social advantage and interest, as these are dependent on conduct; (4) POLITICAL, a formal statute issued by the Legislature regulating the relations and actions of the people of the State.

"That which doth assign unto each thing the kind, that which doth moderate the force and power, that which doth appoint the form and measure of working, the same we term a *law*" (Hooker, *Eccles. Pol.*, bk. i. sec. 2).

Laws in their most extended signification are the necessary relations arising from the nature of things; and, in this sense, all beings have their laws, the Deity has his laws, the material world has its laws, superior intelligences have their laws, the beasts have their laws, and man has his laws" (Montesquieu, *Spirit of Laws*, bk. i. ch. i.).

The word has been transferred into the whole philosophy of being and knowing. When a fact frequently observed recurs invariably under the same circumstances, we compare it to an act which has been prescribed, to an order which has been established, and say it recurs according to a *law*. On the analogy between political laws and laws of nature, see Lindley, *Introduction to Jurisprudence*, app.; Austin, *Province of Jurisprudence Determined*.

"It is a perversion of language," says Paley (*Nat. Theol.*, ch. i.), "to assign any *law*, as the efficient, operative cause of anything. A *law* presupposes an agent; this is only the mode, according to which an agent proceeds; it implies a power; for it is the order according to which that power acts." Reid has said:—"The *laws* of nature are the rules according to which effects are produced; but there must be a *cause* which operates according to these rules. The rules of navigation

never steered a ship, nor did the *law* of gravity ever move a planet" (see also Whewell's *Astronomy*, p. 361).

"Experimental philosophers usually give the name of *empirical laws* to those uniformities which observation or experiment has shown to exist, but upon which they hesitate to rely in cases varying much from those which have been actually observed, for want of seeing any reason *why* such a law should exist" (Mill, *Logic*, bk. iii. ch. xvi. sec. 1). The use of law in this case is provisional and hypothetical.

LEMMA (from λαμβάνω, to take for granted, to assume).—This term is used to denote a preliminary proposition, having no direct relation to the point to be proved, yet serving to pave the way for the proof. In Logic, a premiss taken for granted is sometimes called a *lemma*. To prove some proposition in mechanics, some of the propositions in geometry may be taken as *lemmata*.

LIBERTARIAN.—One who holds that power of Will implies capability of rational control over motives, including desires, affections, and emotions. "I believe he (Crombie) may claim the merit of adding the word *Libertarian* to the English language, as Priestley added that of *Necessarian*" (*Correspondence of Dr Reid*, p. 88).

Both words have reference to the questions concerning self-regulation in moral agency.

LIBERTY OF THE WILL.—The doctrine of Libertarianism is that the Will is such a power as makes it possible to govern or control all the motive forces of our nature, including dispositions and passions, so as to determine personal conduct in accordance with the decisions of the understanding. It implies negatively that impulses or motive forces are not dominant in our life under its normal conditions; positively, that will is associated with intelligence, and that together they are the true governing powers in human life, every intelligent determination presupposing that motives have been subordinated to thought. The liberty so described is often named Moral Liberty, because it is specially illustrated in the subjection of our life to moral law, and seems to be implied in a Categorical Imperative. Kant makes freedom of will a deduction from the imperative of moral law (*Groundwork*, ch. iii.).

"The idea of *liberty* is the idea of a power in any agent to do or forbear any particular action, according to the determination or thought of the mind, whereby either of them is preferred to the other" (Locke, *Essay on Human Understanding*, bk. ii. ch. xxi. sec. 8).

"By the *liberty* of a moral agent, I understand a power over the determinations of his own will. If, in any action, he had power to will what he did, or not to will it, in that action he is free (Reid, *Active Powers*, essay iv. ch. i).

It has been common to distinguish *liberty* into *freedom from constraint or co-action*, and *freedom from necessity*.

Freedom from co-action implies absence of restraint and of compulsion. Moral freedom exists when our knowledge of moral law and our conviction of duty are the governing powers within the sphere assigned to them. Liberty of this kind is called *freedom from necessity*.

Liberty of Will has in some cases been supported by references to *liberty of indifference*, that is, the absence of decision in a state prior to determination (Reid, *Works*, Hamilton, 601). But the action of motive forces in consciousness, and the problem of intelligent determination equally preclude the suggestion of liberty of indifference.

"The will is a kind of causality belonging to living beings, in so far as they are rational, and *freedom* would be this property of such causality that it can be efficient independently on foreign causes determining it" (*Groundwork*; Abbot's Kant's *Theory of Ethics*, p. 65).

"Instead of vainly sought deduction of the moral principle, something else is found which was quite unexpected, that is, moral principle serves conversely as the principle of the deduction of an inscrutable faculty which no experience could prove, but of which speculative reason was compelled, at least, to assume the possibility I mean the faculty of freedom. The moral law, which does not itself require a justification, proves not merely the possibility of freedom, but that it really belongs to beings who recognise this law as binding on themselves" (*ib.*, p. 137; cf. Bradley, *Ethical Studies*, p. 10; Lotze, *Microcosmus*, i. 144-7, and 254-261, Eng. transl.).—V. FREE-WILL, VOLITION, WILL.

^{SU} **LIFE**, the characteristic of vegetable and animal existence, of which we have no scientific explanation. It belongs to organised being, capable of absorption and assimilation of nutriment, having development from a germinal state to maturity, and thereafter subject to decay. A large variety of unsuccessful attempts have been made to account for the phenomena of life. There are in ancient philosophy, the elemental theories, and the hypothesis concerning a principle of life in the universe itself—*anima mundi*—manifesting itself in all the varieties appearing in the world. These theories were purely hypothetical,—attempts to escape the difficulty rather than to solve it. According to Descartes and others, the phenomena of living bodies may be explained by the mechanical and chemical forces belonging to matter. This at least approximates towards a scientific treatment of facts, as it bears upon the activities of organism, which are certainly to be explained by reference to the forces named. The age of science, relying on observation and induction, with use of scientific instruments, has raised the question of the origin of life, with the view of ascertaining whether we can have any scientific evidence of spontaneous generation from material substance. After extended and most careful observation, the conclusion is adverse to this alternative. There is no life known to exist which does not develop from germ, under the action of external conditions favourable to the unfolding of the life already present, and which is found to be of a definite type according to the law of heredity. This investigation naturally concentrated on the lowest forms of organism, under such scrutiny as becomes possible with aid of the microscope (Beale, *Protoplasm; or Life, Force, and Matter*; Huxley, *Lay Sermons*; Tyndall, *Nature*, xv. 303; Bastian's *Beginning of Life*).

Another and larger question has arisen, under the hypothesis of evolution according to the law of natural selection, as developed by Charles Darwin, and widely received. May not the vast varieties of living organism now existing have sprung from one or two germinal forms? The argument here rests upon the following as the most important data:—the struggle for existence; consequent survival of the fittest; natural selec-

tion; natural variation in adaptation to environment; and modification of species under domestication and human direction (C. Darwin, *Origin of Species*; Wallace, *Natural Selection*).

In advance of this arises the highest question concerning the life of man under its two aspects, organism and consciousness, the physical and the intellectual life, in so far as these may be regarded as distinct, while the life is a unity. The evolution theory claims to include man in nature. This is a legitimate claim. Science must exhaust the field of inquiry, whatever be the difficulties encountered in reaching them from form of life in the world. In facing this task, the work has fallen largely to the department of Natural History, Comparative Anatomy, and Histology—Psychology waiting in reserve until the lines of inquiry should approach to its province. In the field of Natural History reference has been made to the gradual advance of organism towards the human form in the monkey and anthropoid ape; in Comparative Anatomy it has been ascertained that the brain of the ape is, in external structure and internal arrangement, only a miniature and undeveloped form of the human brain; and the more detailed microscopic investigations of Histology have shown that in minute structure the very varied nerve-centres belonging to different organisms are similarly provided for fulfilment of common functions. It is thus conclusively shown that all organism, including the human, is constructed on a common plan,—that, for example, from the lowest to the highest order, brain is homologous in structure and function. These are results now scientifically ascertained, while a vast amount remains to be done in study of the internal structure and functions of brain. On the other side, as concerning human life, we have the facts of consciousness, involving all that belongs to rational life, as it is intellectual, moral, and religious in its manifestations, for these are not in any proper sense distinct lives, but three manifestations of one life. Neither moral nor religious life can exist except as belonging to an intellectual life, and accordingly “intellectual” may be taken as the distinctive description. This life brings with it its own distinctive forms, its conceptions of space and time, and its categories,

such as quality and quantity, without which it cannot act. With these characteristics in view, the range of problem becomes more obvious. Can "life" here be taken to mean the same thing as when we apply the term to organism? Can the intellectual be shown to be in the same line as the organic? Can it be so placed as to wear the aspect of evolution from organic life? On the one hand, there are the common characteristics of a nerve system, sensory and motor. On the other, there are the special characteristics of intellectual "life," involving thought and its forms, discriminating sensible things, and recognising things supersensible, that is, not visible, nor audible, nor capable of being brought under any phase of general or special sense. It is represented by some that "organic" and "mental" are in the direct line of evolution (C. Darwin, Herbert Spencer); that in the case of man these are only two sides of one existence (Bain): that the two are related in one existence, but so essentially different, that the intellectual cannot be represented as belonging to the order of organic evolution,—the whole Rational, Transcendental, or Idealistic school of thinkers (Carpenter's *Mental Physiology*; Calderwood's *Relations of Mind and Brain*).

As to the problem regarding the origin of life, see Huxley, *Lay Sermons*, No. vii.; Stirling, *As Regards Protoplasm*; Bastian's *Evolution and the Origin of Life*, and his *Beginnings of Life*.

LIMITATION (Conversion by).—V. CONVERSION.

LOCAL SIGNS.—A term used by Lotze and Wundt to describe the means of the conversion of the non-spatial data of sense into a spatial world. "The single impressions exist together in the soul in a completely non-spatial way, and are distinguished simply by their qualitative content. . . . From this non-spatial material the soul has to re-create entirely afresh the spatial image that has disappeared; and in order to do this it must be able to assign to each single impression the position it is to take up in this image relating to the rest, and side by side with them. Presupposing this . . . that for unknown reasons the soul can and must apprehend in spatial forms what comes to it as a number of non-spatial impressions,

some clue will be needed, by the help of which it may find for each impression the plan it must take, in order that the image that is to arise in idea may be like the spatial figure that has disappeared" (Lotze, *Metaphysics*, bk. iii. ch. iv., Bosanquet, p. 485). The means of this "localisation" of the impressions are "local signs." "A token of its former spatial position must be possessed by each impression, and retained throughout the time when that impression, together with all the rest, was present in a non-spatial way in the unity of the soul. Where, then, does this token come from? . . . It is not until these similar stimuli come in contact with our bodies that they are distinguished, and then they are distinguished according to the different points at which they meet the extended surface of our organs of sense. This accordingly may be the spot at which the token I am describing has its origin, a token which is given along with the stimulus in consequence of the effects produced by it at this spot, and which in the case of each single stimulus is distinguished from that given along with any other stimulus" (*ib.*, pp. 485-6).

LOGIC (λογική, λόγος, reason, reasoning, language).—The word *logica* was early used in Latin; while ἡ λογική and τὸ λογικόν were late in coming into use in Greek. Aristotle did not use either of them. His writings, which treat of the syllogism and of demonstration, were entitled *Analytics*. The name *Organon* was given to the collected series of his writings upon *logic* by the Peripatetics (*cf. Topics*, viii. 14). The reason of the name is, that *logic* was regarded as not so much a science in itself as the *instrument* of all science. The Epicureans called it κανονική, the rule by which true and false are to be tried. Plato, in the *Phaedrus*, had called it a *part* (μέρος), and in the *Parmenides* the organ (ὄργανον) of philosophy (see Trendelenburg, *Elementa Log. Arist.*). An old division of philosophy, originating with the Stoics, was into *logic*, *ethics*, and *physics*.

The name is used in a variety of senses. First, there is the most restricted, known as *Formal Logic*—the science of the laws of thought, as thought (Kant, Hamilton, Mansel, Thomson).

At the beginning of the *prior analytics*, Aristotle has laid it down that "the object of *logic* is demonstration."

"*Logic* is the science of the laws of thought as thought; that is, of the necessary conditions to which thought, considered in itself, is subject" (Hamilton, *Reid's Works*, p. 698, note).

"*Logic* is the science of the laws of thought. . . . It is the science of the *form* or *formal laws* of thinking, and not of the *matter*" (Thomson, *Outlines of the Laws of Thought*).

Second, the theory of evidence, or philosophy of the whole mental processes by which the mind attains to truth, as developed by Mill, who defines Logic as "the science of the operations of the understanding which are subservient to the estimation of evidence." Hamilton's view, according to Mill, restricts the science to "that very limited portion of its total province which has reference to the conditions, not of Truth, but of Consistency" (see his *Examination of Hamilton's Philosophy*). On the question as to how far Logic is concerned with the *method* and not with the mere *form* of thought, see Lotze, *Logic*, p. 26, Bosanquet's transl.

Third, an account of the ultimate principles of knowledge in their systematic connection. This is the *Transcendental Logic* or Critical Method of Kant, so far as it regards Understanding or Reason, *i.e.*, in the *Analytic* and *Dialectic*. Holding that the ordinary (analytic or subjectively formal) Logic gives a sufficient account of the functions of unity in Judgment, he endeavours, with these as a clue, to trace the system of principles which make possible the synthesis of the manifold in the unity of knowledge (*cf. Critique of Pure Reason*, Transc. Analytic, introd.).

Fourth, a rationalised theory of all known existence, which is the commonly accepted meaning of the term with the transcendental school of philosophy. Thus Hegel calls his entire system a *Logic*. In this sense *Logic* becomes identified with *Metaphysic*. The process of thought and of existence alike being a dialectic movement, the following out of that movement in either of its aspects is a *Logic*. Thus the term *Dialectic* is used by modern philosophy, as it was by Plato, to cover the common province of Logic and of Metaphysic.

The question has been discussed, whether Logic is a *Science* or an *Art*, or both. Whately says :—" *Logic*, in its most extensive application, is the science as well as the art of reasoning. So far as it institutes an analysis of the process of the mind in reasoning, it is strictly a *science* ; while, so far as it investigates the principles on which argumentation is conducted, and furnishes rules to secure the mind from error in its deductions, it may be called the *art* of reasoning."

Logic has been variously subdivided, as *Pure*, and *Mixed*, or *Applied*. The former would embrace the Logic of Deduction ; the latter that of Induction and Testimony. *Deductive Logic* consists of three parts, corresponding to the three forms in which thought manifests itself, viz., the Concept, the Judgment, and the Syllogism. Method, or the scientific arrangement of thoughts, is frequently added as a fourth head. For a statement and criticism of the doctrines of the leading logical schools, as well as the discussion of the nature and province of *Logic*, see art. "Logic," by Adamson, in *Encyclopædia Britannica*, 9th ed.

LOVE.---The fundamental benevolent disposition in human affection, involving regard, admiration, and eagerness to help. Love and Hate are the genetic affections of mind, from which all the others take their rise. The former is awakened by the contemplation of something which is regarded as good, and the latter by the contemplation of something regarded as evil.

MACHINE (Logical).--Jevons, holding that inference is the *substitution of similars (q.v.)*, has invented a *Logical Machine* for the performance of the process (see his *Principles of Science*).

MACROCOSM (*μακρός*, large ; *κόσμος*, world).

Many ancient philosophers regarded the world as an animal, consisting like man of a soul and a body. This opinion, exaggerated by the mystics, became the theory of the *macrocosm* and the *microcosm*, according to which man was an epitome of creation, and the universe was man on a grand scale. The same principles and powers which were perceived in the one were attributed to the other, and while man was believed to have a supernatural power over the laws of the

universe, the phenomena of the universe had an influence on the actions and destiny of man.

MAGNANIMITY (*magnus*, great; *animus*, mind), greatness of soul, a crowning element in character arising from appreciation of the dignity of human nature, in view of its powers and responsibilities.

By ancient moralists *magnanimity* was described as lifting us above the good and evil of this life—so that while the former was not necessary to our happiness, the latter could not make us miserable. The most striking treatment of magnanimity is found in Aristotle's description of "the great-souled man" (*N. Ethics*, bk. iv. c. iii.).

MAGNETISM (Animal).—Under this name have been classified those peculiar physical and physiological phenomena which are produced by a conscious or unconscious influence of one organism upon another, analogous to that of the magnetic force in nature. The impression produced by living beings upon each other was considered a modification of universal law of mutual impression, which has been designated *natural magnetism*; for this reason, the artificial method of producing it has been called *magnetism*. It has also been supposed to be originated by metallic action upon the nerve system.—*V.* MESMERISM.

MAJOR.—Applied both to terms and to propositions, regarded as parts of the syllogism. The *major* term is that which is the predicate of the conclusion, the *minor*, that which is the subject of the conclusion. The reason of their being thus designated is that in the Aristotelian logic, the subject and predicate of the conclusion are respectively included and including. The premiss in which the major term is compared with the middle is called the *major premiss*; that in which the minor and middle terms are compared being called the *minor premiss*.—[J. S.]

MANICHÆISM (so called from Manes, a Persian philosopher, who flourished about the beginning of the third century), the doctrine that there are two eternal principles, the one good and the other evil, to which the happiness and misery of all beings may be traced. It has been questioned whether

this doctrine was ever maintained to the extent of denying the Divine unity, or affirming that the system of things had not an ultimate tendency to good. It is said that the Persians, before Manes, maintained a dualism giving the supremacy to the good principle; Manes maintained both to be equally eternal and absolute. The Manichean doctrine was ingrafted upon Christianity about the middle of the third century.

MATERIALISM, the theory which reduces all existence to unity in matter. I. Ancient, and II. Modern.

I. *Ancient*.—Leucippus and Democritus, Epicureans, esp. Lucretius.—See **ATOMISM**.

II. *Modern*.—Essentially the same as ancient atomism. It is, however, more conscious: the distinction between mind and matter having been more deeply realised. Modern materialism, like modern idealism, is more sharply defined and more dogmatically expressed than the corresponding ancient systems.

Gassendi, Hobbes, Hartley, Priestley (England); La Mettrie and Von Holbach (France). See Lange's *History of Materialism* (transl. by Thomas); Zeller's *History of Greek Philosophy, Pre-Socratic Period* (on the Atomists); Sellar's *Roman Poets of the Republic* (essay on Lucretius); Veitch's *Lucretius and the Atomic Theory*, Munro's *Lucretius*; Flint's *Anti-Theistic Theories*, lects. ii., iii., iv., app. v.—xix.

Priestley, *Disquisitions on Matter and Spirit; Three Dissertations on the Doctrine of Materialism and Philosophical Necessity*; Price, *Letters on Materialism and Philosophical Necessity*. Under this doctrine, mind is only a function of the brain, its organisation, with hereditary transmission accounting for all that distinguishes the intellect of man. "The brain secretes thought, as the liver secretes bile" (Cabanis, *Rapport du Physique et du Moral de l'Homme*).

MATHEMATICS (μαθηματική [sc. ἐπιστήμη] τὰ μαθήματα), the science of spatial and quantitative relations.

Pythagoras and his followers found the ultimate explanation of things in their mathematical relations; and Spinoza applied the mathematical method of demonstration from Definitions and Axioms to philosophy.

Various views have been held by philosophers as to the

nature of mathematical truth. In general it is regarded as the type of universal and necessary truth. Kant, *e.g.*, holds that it is one kind of *synthetic knowledge à priori*; and in the *Æsthetic* he seeks to answer the question: How is pure Mathematics, as a science, possible? (*cf. Prolegomena*, secs. 6–13). With this may be contrasted the view of J. S. Mill, who, in his *Logic*, maintains the *hypothetical* character of mathematical truth. The assertions on which the reasonings of the science are founded do not, any more than in other sciences, exactly correspond with the fact; but we *suppose* that they do so for the sake of tracing the consequences which follow from this supposition. “The opinion of Dugald Stewart respecting the foundations of geometry is, I conceive, substantially correct: that it is built upon hypothesis; that it owes to this alone the peculiar certainty supposed to distinguish it; and that in any science whatever, by reasoning from a set of hypotheses, we may obtain a body of conclusions as certain as those of geometry, that is, as strictly in accordance with the hypotheses, and so irresistibly compelling assent *on condition* that those hypotheses are true. When, therefore, it is affirmed that the conclusions of geometry are necessary truths, the necessity consists in reality only in this, that they necessarily follow from the suppositions from which they are deduced” (*Logic*, bk. ii. ch. v. sec. 1). *Cf. Logic*, bk. i. ch. viii. sec. 6, where he says, that in the *Definitions* of geometry there is implied the *postulate* of the existence of things corresponding to them.—[J.S.]

MATTER, as opposed to *mind* or *spirit*, is that which occupies space or is extended, and with which we become acquainted by means of our bodily senses or organs. Everything of which we have any knowledge is either *matter* or *mind*, *i.e.*, *spirit*. *Mind* is that which knows and thinks. *Matter* is that which is known by means of the bodily senses.

According to Descartes the essence of *mind* is *thought*, and the essence of *matter*, *extension*. Leibnitz said the essence of all being, whether *mind* or *matter*, is *force*. *Matter* is an assemblage of simple forces or monads. His system of physics was *dynamical*; Newton's, *mechanical*; Leibnitz having held that the monads possess vital energy. The ultimate reason of

all movement is, he maintains, a force communicated at creation, which is everywhere, but, while present in all bodies, is differently limited. See Leibnitz, *De Prince Philosophiæ Emendatione et de Notione Substantiæ*, or *Nouveau Systeme de la Nature et de la Communication des Substances*, in the *Journal des Savans*, 1695. On the various hypotheses to explain the activity of matter, see Stewart, *Active and Moral Powers*, last ed., vol. ii. note A; and *Outlines*, pt. ii. ch. ii. sec. 1. Boscovich, *Theoria Philos Naturalis* (see FORCE).

The properties which have been predicated as essential to matter are impenetrability, extension, divisibility, inertia, weight. To the senses it manifests colour, sound, smell, taste, heat, and motion; and by observation it is discovered to possess elasticity, electricity, magnetism, &c.

Matter and Form.

Matter as opposed to form is that elementary constituent in composite substances, which appertains in common to them all without distinguishing them from one another. Everything generated or made, whether by nature or art, is generated or made out of something else, and this something else is called its matter. Matter void of form was called ἕλη πρώτη, or, *prima materia* (V. HYLOZOISM). Form when united to matter makes it determinate, and constitutes body. This distinction (ἕλη and εἶδος) is one of great importance in Aristotle's philosophy. The real is the concrete unity of form and matter τὸ σύνολον. To Aristotle the distinction is thus an objective one. To Kant, on the other hand, it is primarily subjective - a distinction of knowledge; but since, from his point of view, the conditions of knowledge are at the same time those of being, the distinction becomes also objective. The matter is the "given raw material," the "manifold"; the form is the principle of arrangement which reduces this manifold to unity. The former is *à posteriori*; the latter, *à priori*. The "matter" is the incalculable element in experience, that which must be waited for. The "form" is the universal and necessary characteristic of Experience. Though only the *à priori* conditions of perception are called by Kant "forms," the Understanding and the Reason have each their formal element, the Categories belonging to

the former, the Ideas to the latter. "That which in the phenomenon corresponds to the sensation, I term its *matter*; but that which effects that the content of the phenomenon can be arranged under certain relations, I call its *form*" (*Critique of Pure Reason*, Transc. Æsthetic, sec. 1).

"The term *matter* is usually applied to whatever is given to the artist, and consequently, as given, does not come within the province of the art itself to supply. The *form* is that which is given in and through the proper operation of the art. In sculpture, for example, the *matter* is the marble in its rough state as given to the sculptor; the *form* is that which the sculptor in the exercise of his art communicates to it. The distinction between *matter* and *form* in any mental operation is analogous to this. The former includes all that is given *to*, the latter all that is given *by*, the operation" (Mansel, *Prolegomena Logica*, p. 243, 2nd ed.).

MAXIM (*maxima propositio*, a proposition of the greatest weight), is used by Boethius as synonymous with *axiom*, or a self-evident truth (Hamilton, *Reid's Works*, note A, sec. 5). It is used in the same way by Locke (*Essay on Human Understanding*, bk. iv. ch. vii.). "There is a sort of propositions which, under the name of *maxims* and *axioms*, have passed for principles of science." By Kant, *maxim* was employed to designate a subjective principle, theoretical or practical, *i.e.*, one not of objective validity, being exclusively relative to some interest of the subject. *Maxim* and *regulative principle* are, in the Critical philosophy, opposed to *law* and *constitutive principles*.—V. AXIOM.

MEAN (The) (τὸ μέσον or μεσότης) is the watchword of the Aristotelian ethics. The term emphasises the great distinction between the ethics as well as the metaphysics of Plato and Aristotle. While Plato found the Good, as he found the True, in a world which transcended the world of sight and of ordinary life, Aristotle found both the True and the Good in the actual world of sense and of ordinary life. The great End of life is to be sought in the ends which naturally present themselves; the life of the rational soul is to be realised in and along with that of the animal and vegetable soul. Sense and

passion are not to be annihilated, but rationalised or guided and regulated in their exercise by rational principle. Virtue is essentially the complete and harmonious development of all our powers; it consists in the observance of the *mean* between excess and defect in the exercise of all. Aristotle illustrates this doctrine in the case of the several virtues, as Temperance, Courage, &c. Recognising, however, the need of an absolute standard of virtue, he postulated Right Reason (*ὁρθὸς λόγος*) as the ultimate guide in questions of conduct, and even admits that absolutely, or in its essential nature, virtue is not the mean, but an extreme. It should be added that, while the doctrine of the Mean is primarily a recoil from the Absolute Good of Plato, it may also be regarded as the development of the Platonic doctrine of Harmony as the essence of Justice (see *N. Ethics*, bk. ii. ch. vi.; Sir A. Grant's *Aristotle's Ethics*; E. Wallace's *Outlines of the Philosophy of Aristotle*).—[J. S.]

MEDIATE.—V. INFERENCE.

MEGARICS (The).—The third of the Socratic schools, founded by Euclid of Megara. Its interest was more dialectical than that of either of the others. The teaching of the Megarics is called by Schwegler "a Socratic transformation of the Eleatic doctrine." Euclid identified the *Being* of Zeno with the *Good* of Socrates, maintaining its essentially rational character, and conceding only apparent existence to all else. Thus intellectually, the Megarics busied themselves with a negative existence, intended to disprove the reality of the sensuous and manifold, and preparing the way for the post-Aristotelian Scepticism; while, ethically, their inculcation of the necessity of a life of pure reason, in which sense and passion were utterly annihilated, has been well called "only a finer, more intellectual Cynicism" (Zeller, *Socrates and the Socratic Schools*, Eng. transl.; Schwegler and Ueberweg, *Histories of Philosophy*, *in loc.*).

MEMORY (from *memini*, preterite of the obsolete form *meneo* or *meno*, from the Greek *μένειν*, *manere*, to stay or remain. From the contracted form *μνάω* comes *μνήμη*, the memory in which things remain). Commonly the power of retaining and reproducing our knowledge. Hamilton says it

includes a faculty of retention, of reproduction, and of representation (*Metaphysics*, lect. xxx).

Consciousness testifies that, when a thought has once been present to the mind, it may again become present to it, with the knowledge that it has formerly been present. When this takes place we are said to *remember*, and the faculty of which *remembrance* is the act is *memory*.

"The word *memory* always expresses some modification of that faculty which enables us to treasure up, and preserve for future use, the knowledge we acquire. . . . This faculty implies two things; a capacity of retaining knowledge, and a power of recalling it to our thoughts when we have occasion to apply it to use. The word *memory* is sometimes employed to express the capacity, and sometimes the power. When we speak of a *retentive* memory, we use it in the former sense; when of a *ready* memory, in the latter" (Stewart, *Elements*, ch. vi. sec. 1).

Locke (*Essay on Human Understanding*, bk. ii. ch. x. secs. 1, 2) treats of *retention*. "The next faculty of the mind (after perception), whereby it makes a further progress towards knowledge, is that which I call *retention*, or the keeping of those simple ideas, which from sensation or reflection it hath received. This is done two ways: first, by keeping the idea which is brought into it for some time actually in view; which is called *contemplation*. The other way of *retention*, is the power to revive again in our minds those ideas which, after imprinting, have disappeared, or have been, as it were, laid aside out of sight; and thus we do, when we conceive heat or light, yellow or sweet,—the object being removed. This is *memory*, which is, as it were, the storehouse of our ideas."

Memory is neither a decaying sense, as Hobbes would make it, nor a transformed sensation, as Condillac would have it to be; but a distinct and original faculty, the phenomena of which cannot be included under those of any other power. There is much in favour of the supposition that recollection of sensory impression may be accompanied by renewal of brain activity at the point where the remembered impression is first received (Bain, *Mind and Body*, p. 89). From this considera-

tion may come the question, whether we may legitimately infer that there is a species of "physical memory?" (Calderwood, *Mind and Brain*, p. 352).

Hobbes says (*Human Nature*, ch. iii. sec. 6):—"By the senses we take notice of the objects without us, and that notice is our conception thereof; but we take notice also, some way or other, of our conceptions, for, when the conception of the same thing cometh again, we take notice that it is again, that is to say, that we have had the same conception before, which is as much as to imagine a thing past, which is impossible to the sense, which is only of things present.

Stewart holds that *memory* involves "a power of recognising, as former objects of attention, the thoughts that from time to time occur to us: a power which is not implied in that law of our nature which is called the association of ideas." But he afterwards draws a further distinction between memory of *things* and the memory of *events* (*Elements*, ch. vi. sec. 1). "In the former case, thoughts which have been previously in the mind, may recur to us without suggesting the idea of the past, or of any modification of time whatever; as, when I repeat over a poem which I have got by heart, or when I think of the features of an absent friend." Still there is a recognition that the knowledge possessed was previously in possession, and this is impossible without reference to time. Aristotle (*De Memoria et Reminiscentia*, cap. 1) has said that *memory* is always accompanied with the notion of time, and that only those animals that have the notion of time have *memory*.

The laws which facilitate the retention or the recurrence of anything by the *memory*, are chiefly—*Vividness*, *Attention*, and *Repetition*.

"The things which are best preserved by the *memory*," said Lord Herbert (*De Veritate*), "are the things which *please* or *terrify*—which are *great* or *new*—to which much *attention* has been paid—or which have been oft *repeated*,—which are *apt* to the circumstances—or which have many things *related* to *them*."

In its first manifestations, *memory* operates spontaneously,

and thoughts are allowed to come and go through the mind without direction or control. But it comes subsequently to be exercised with intention and will; some thoughts being sought and invited, and others being shunned and as far as possible excluded. *Spontaneous memory* is remembrance. *Intentional memory* is recollection or reminiscence. The former in Greek is *Μνήμη*, the latter *Ἀνάμνησις*. Sully calls the former *passive*, the latter *active*, memory (*Outlines of Psychology*, p. 276. For *Laws of Association*, V. Hamilton, *Lects. on Metaph.*, vol. ii. 233; Mill's *Exam. of Hamilton*, 3rd ed. p. 219).—V. ASSOCIATION.

Memory, in its spontaneous or passive manifestation and simpler forms, is possessed by the inferior animals. This appears in connection with locality, and the frequently recurring sensory impressions. Aristotle denied that they are capable of *recollection*, such as implies conception. Reid has remarked that the inferior animals do not measure time, nor possess any distinct knowledge of intervals of time. In man, *memory* is the condition of all experience, and consequently of all progress.

Memory, specially in its pictorial form, involving use of imagination, is liable to be largely stimulated by special excitation of brain. This appears in the case of persons under fever or in danger of drowning. Authentic cases of this kind are on record (see Coleridge, *Biographia Literaria*; De Quincey, *Confessions of an English Opium-Eater*; Barrow, *Autobiography*; Hamilton, *Metaph.*, lects. xxxi., xxxii.; Carpenter, *Mental Physiology*). Hence the question has arisen, Whether every object of former consciousness may not be liable to be recalled?

Aristotle, *De Memoria et Reminiscentia*; Beattie, *Dissertations*, Reid, *Intellectual Powers*, essay iii.; Stewart, *Elements*, ch. vi.; Sully, *Outlines of Psychology*, ch. vii.—V. REMINISCENCE, CONSERVATIVE FACULTY.

MENTAL PHILOSOPHY.—A rational explanation of the facts of consciousness (*Psychology*), and of the problems issuing out of these facts (*Metaphysics*). Mental Philosophy has two divisions, Intellectual Philosophy and Moral Philosophy—

the Philosophy of knowing, and the Philosophy of right action. To both divisions there belongs a Psychology, or science of mental operations; and also a Metaphysic, or science of transcendent realities.

MERIT (*meritum*, from *μέρος*, a part or portion of labour or reward) means good desert, deserving of praise or reward. All right actions are meritorious; that is, they give warrant for self-approbation on the part of the agent, and are, from the very nature of moral law, entitled to the approbation of all moral beings, and of the Moral Governor himself.

We recognise a quality of rightness in action, and personal duty is connected with the doing of right actions. When our duty is done we experience a sentiment of self-approbation. We thus have the idea of *merit* or good desert. Recognising in moral law the expression of the Divine will, religious sentiment strengthens the moral. In the same manner, as in judging of our own conduct, we recognise merit in others.

The idea of *merit*, then, is a primary idea natural to the mind of man; not an afterthought, leading to praise of the right when we see that it is beneficial (see Price, *Review*, ch. iv.). Bain maintains, on the contrary, that we pay lofty compliments to virtue under pressure of self-interest.

The distinction between the philosophic and the theological views of merit consists in this—Under the former, merit is personal desert, essentially connected with the fulfilment of moral law in each morally right action; under the latter, this personal desert cannot involve modification of ill desert in case of wrong doing, and cannot provide for deliverance from the condemnation due to wrong doing. The two views are in strict ethical harmony.

MESMERIC SLEEP.—Abnormal sleep, artificially induced, during which mental activity is maintained under direction of the operator. The sleep seems to be induced by artificial methods for wearying the nerves of vision, consequent upon concentration of the eyes, or by passes of the hands of an operator in near contact with the eyes. There seems no warrant for speaking of animal magnetism, or of a current of any kind passing from the body of the operator to the subject,

inasmuch as a person may himself induce the sleep by determined concentration of the eyes. Susceptibility to the soporific effect is increased by repeated subjection to the artificial contrivances which induce it. The longer this subjection is continued, the more hazard there is of establishing abnormal brain susceptibilities. The phenomena of mesmeric sleep seem to warrant these conclusions—that voluntary consent is a necessary condition for inducing such sleep; that the organ of vision and optic nerve and optic bulb are placed in the state of somnia, while the other sensory apparatus, and the entire cerebrum unconnected with optic impressions, remain in normal action; that in this state imagination becomes active, as in ordinary sleep; and that the agent carries out his purposes as if in the working state, not in the somnolent.

METAPHYSICS—that department of mental philosophy which is concerned with speculative problems, transcending those belonging to the nature and relations of the facts of consciousness. The speculative department of philosophy, transcending empirical psychology. (1) In earlier Scottish usage named the Higher Metaphysics, while Psychology was the Lower; (2) In the *Critical Philosophy* of Kant, metaphysic includes all the phenomena of consciousness which do not arise from experience,—the whole range of *à priori*, in contrast with *à posteriori* elements in consciousness. Kant's application of the term has greatly affected subsequent usage. (3) It is uniformly applied to the speculative department of mental science, including ontology. The origin of the term is commonly referred to Andronicus of Rhodes, who, in collecting the works of Aristotle, inscribed upon a portion of them the words *Τὰ μετὰ τὰ φυσικά*. Whether the phrase was intended merely to indicate that this portion should stand after the physics in the order of collected works of Aristotle, or to mark the philosophic significance of the work as the *πρώτη φιλοσοφία*,—dealing with *ὅν ἢ ὅν*,—is not clear (Ueberweg's *Hist.*, i. 145; Schwegler's *Hist.*, p. 98).

Clemens Alexandrinus (*Strom. i.*) considered *metaphysical* as equivalent to *supernatural*.

In Latin *metaphysica* is synonymous with *supernaturalia*.

And in English Shakespeare has used *metaphysical* as synonymous with *supernatural*.

In modern philosophy, logic and metaphysics have been the designations of the two branches of intellectual philosophy, as distinguished from moral philosophy; metaphysic in this case including psychology and ontology.

Bacon said:—"The one part (of philosophy), which is *physics*, inquireth and handleth the *material* and *efficient* causes; and the other which is *metaphysic* handleth the *formal* and *final* cause" (*Advancement of Learning*, bk. II.).

In another passage, Bacon thus admits the value of a higher *metaphysic*. "It is good to erect and constitute one universal science by the name of *philosophia prima*, primitive or summary philosophy, as the main and common way, before we come where the ways part and divide themselves; which science, whether I should report deficient or no, I stand doubtful." Except, however, as proceeding by observation rather than by speculation *à priori*, even this science would have been but lightly esteemed by Bacon.

Kant's use of the term will appear from the following passages:—"Reason finds itself compelled to have recourse to principles which transcend the region of experience, while they are regarded by common sense without distrust. It thus falls into confusion and contradictions. . . . The arena of these endless contests is called *metaphysic*" (Preface to 1st edition of *Critique of Pure Reason*, Meiklejohn, xvii.). Metaphysic is thus "a science which shall determine the possibility, principles, and extent of human knowledge *à priori*." "In this transcendental or supersensible sphere, where experience affords us neither instruction nor guidance, lie the investigations of *Reason*. . . . The unavoidable problems of mere pure reason are God, Freedom (of will), and Immortality. The science which, with all its preliminaries, has for its special object the solution of these problems is named metaphysics" (*ib.*, 4, 5). "Metaphysic is divided into that of the *speculative* and that of the *practical* use of pure reason, and is, accordingly, either the metaphysic of nature, or the metaphysic of ethics. The former contains all the pure rational principles . . . of

all theoretical cognition; the latter the principles which determine and necessitate *à priori* all action. . . . The metaphysic of speculative reason is what is commonly called metaphysic in the more limited sense. But as a pure moral philosophy properly forms a part of this system of cognition, we must allow it to retain the name metaphysic" (*ib.*, p. 509). Metaphysic in the higher sense he finds not in the speculative, but in the practical system of cognition.

The outcome of his own work, so far as the *Critique of Pure Reason* is concerned, is the demonstration of the baselessness of *metaphysics* in the old sense. This result is stated in the *dialectic*, where he concludes that metaphysics, in its three branches, is grounded in over-confidence of reason in her own powers. The three ideas of metaphysics are not *constitutive*, but *regulative*. They are ideals towards the realisation of which experience is always making, but which are never fully realised in any object of experience. There is therefore no legitimate *science of metaphysics*. The duty of reason is not the construction of a system of truth about God, the world, and man; but self-criticism, the limitation of her work to her true province, the guidance by experience. In a word, her function is *transcendental*, not *transcendent*. While, however, he thus denies the validity of metaphysics in the old sense he restores it in a sense of his own; while he denies it in the sphere of the *pure* reason, he reaffirms it in that of the *practical* reason—he establishes, in room of the old ontological metaphysics, a *Metaphysics of Ethics* (*cf.* the *Prologomena*, transl. by E. Belfort Bax, Bohn's series).

"The name metaphysics is a creation of Aristotelian commentators. Plato's word for it was dialectics, and Aristotle used instead of it the phrase 'first (fundamental) philosophy,' while physics in a like connection is for him 'a second philosophy.' The relation of this first philosophy to the other sciences is defined by Aristotle as follows:—Every science, he says, selects for investigation a special sphere, a particular species of being, but none of them applies itself to the notion of Being as such. There is a science necessary, therefore, which shall make an object of inquiry on its own account, of that

which the other sciences accept from experience, and as it were hypothetically. This is the office of the first philosophy, which occupies itself therefore with being as being, whereas the other sciences have to do with special concrete being. Metaphysics constituting, then, as this science of being and its elementary grounds, a presupposition for the other disciplines, are naturally *first* philosophy. If there were, namely, says Aristotle, only physical beings, physics would be the first and only philosophy; but if there is an immaterial and unmoved essence which is the ground of all being, there must be also an earlier, and as earlier, universal philosophy. This first ground of all being is God, and for that reason Aristotle sometimes also calls his first philosophy theology" (Schwegler, *History of Philosophy*, 8th ed., p. 98, Stirling).

METEMPIRICAL. — A term introduced by G. H. Lewes to describe what he regards as the sphere and method of metaphysics. "Since we are to rise to Metaphysics through Science, we must never forsake the method of science; and further, if in conformity with inductive principles we are never to invoke aid from any higher source than experience, we must, perforce, discard all inquiries whatever which transcend the ascertained or ascertainable data of experience. Hence the necessity for a new word which will clearly designate this discarded remainder — a word which must characterise the nature of the inquiries rejected. If, then, the *empirical* designates the province we include within the range of science, the province we exclude may fitly be styled the *Metempirical*" (*Problems of Life and Mind*, 1st series, p. 16).

METEMPSYCHOSIS (μετά, beyond; ἐμψυχόω, to animate), is the transmigration or passage of the soul from one body to another.

This doctrine implies a belief in the pre-existence and future life of the soul. According to Herodotus the Egyptians were the first to espouse this doctrine. They believed that the soul at death entered into some animal created at the moment; and that after having inhabited the forms of all animals on earth, in the water, or in the air, it returned at the end of three thousand years into a human body, to begin anew a similar course of transmigration. (Among the inhabitants of

India the transmigration of the soul was more nearly allied to the doctrine of *emanation*—*q.v.*) The common opinion is, that the doctrine of transmigration passed from Egypt into Greece. But, before any communication between the two countries, it had a place in the Orphic mysteries. Pythagoras may have given more precision to the doctrine. It was adopted by Plato and his followers, and, according to one of St Jerome's letters, was secretly taught among the early Christians. The doctrine led to abstaining from flesh, fish, or fowl, and this, accordingly, was one of the fundamental injunctions in the religion of Brahma, and in the philosophy of Pythagoras.

METHOD (*μέθοδος*, *μετὰ* and *ὁδός*), the way by which we proceed to the attainment of some object. *Method* is the following of one thing *through* another. *Order* is the following of one thing *after* another. Every art and handicraft has its *method*. Cicero translates *μέθοδος* by *via*, and couples it with *ars* (*Brutus*, cap. xii., *cf. De Finibus*, ii. 1).

Method may be called, in general, *the art of disposing well a series of many thoughts, either for the discovering truth when we are ignorant of it, or for proving it to others when it is already known*. Thus there are two kinds of *method*, one for discovering truth, which is called *analysis*, or the *method of resolution*, and which may also be called the *method of invention*; and the other for explaining it to others when we have found it, which is called *synthesis*, or the *method of composition*, and which may also be called the *method of doctrine* (*Port Roy. Logic*, pt. iv. ch. ii.).

"*Method*, which is usually described as the fourth part of Logic (*V. Logic*) is rather a complete practical Logic. . . . It is rather a power or spirit of the intellect, pervading all that it does, than its tangible product" (Thomson, *Outline of Laws of Thought*, 3rd ed., p. 87).

The construction of a system implies *method*. No one was more thoroughly aware of the importance of a right *method* than Aristotle. He has said (*Metaphys.*, lib. ii.) "that we ought to see well what demonstration (or proof) suits each particular subject; for it would be absurd to mix together the research of science and that of *method*; two things, the

acquisition of which offers great difficulty." The deductive *method* of Formal Logic came at once finished from his hand. And even the inductive *method* was recognised, and, to a certain extent, followed out by him.

Descartes, in his discourse on *Method*, has reduced it to four general rules:—(1) To admit nothing as true of which we have not a clear and distinct idea; (2) to divide every object inquired into as much as possible into its parts; (3) to ascend from simple ideas or cognitions to those that are more complex; (4) by careful and repeated enumeration to see that all the parts are reunited. This *method*, beginning with doubt as a tentative exercise, proceeds by analysis and synthesis, and accepts evidence in proportion as it resembles the evidence of self-consciousness.

Sciences are sometimes distinguished, according to their prevailing method, as *deductive* and *inductive* (see these terms).

Descartes, *On Method*; Mill, *Logic*, bk. vi.; Jevons, *Principles of Science*; Lotze, *Logic*, 411 (Bosanquet's transl.)—V. SYSTEM. On the Analytic and Synthetic Method, V. ANALYSIS and SYNTHESIS. On the Methods of Induction, V. INDUCTIVE METHODS.

METHODOLOGY (*Methodenlehre*) is the transcendental doctrine of method (see Kant, *Critique of Pure Reason*, Meiklejohn's transl., p. 431).

MICROCOSM (*μικρός*, small; *κόσμος*, world).—The world in miniature, commonly applied to Man, whose nature, physical and spiritual in one, is representative of the cosmos as a whole. Bacon (*Advancement of Learning*, bk. ii.) speaks of "the ancient opinion that man was *microcosmus*, an abstract or model of the world." Reid says (*Active Powers*, essay iii. pt. i. ch. i.):—"Man has, not without reason, been called an epitome of the universe. His body, by which his mind is greatly affected, being a part of the material system, is subject to all the laws of inanimate matter. During some part of his existence his state is very like that of a vegetable. He rises by imperceptible degrees to the animal, and at last to the rational life, and has the principles that belong to all." Lotze has discussed the whole aspects of the cosmos, tested by the life of man, with

special reference to the conditions of knowledge, in his *Microcosmos*, translated by Misses Hamilton and Jones. His meaning in giving his work this name may be gathered from the closing sentences—"The universal, the class, the state of things, belong to the mechanism into which the Supreme articulates itself; the true reality that is and ought to be, is not matter, and is still less Idea, but is the living personal Spirit of God, and the world of personal spirits which He has created. They only are the place in which Good and good things exist; to them alone does there appear an extended material world, by the forms and movements of which the thought of the cosmic whole makes itself intelligible through intuition to every finite mind" (Eng. transl., ii. 728).

MIDDLE TERM—V. SYLLOGISM.

MIND.—(1) Self-conscious Intelligence, possessing rational power of self-determination; (2) more widely—specially from a physiological point of view—to include such recognition of external objects as is provided for through the special senses as related to the cerebrum. In this wider meaning, excluded from mental philosophy, we have discussions as to "mind in animals."

"Among metaphysicians, *mind* is becoming a generic, and *soul* an individual designation. *Mind* is opposed to matter; soul to body. *Mind* is soul without regard to personality; soul is the appropriate *mind* of the being under notice" (Taylor's *Synonyms*). See Lotze, *Microcosmus*, i. 144, 267; Calderwood's *Relations of Mind and Brain*; Cyples, *Processes of Human Experience*.

MINIMUM VISIBILE, AUDIBILE.—According to Hamilton, the least sensation of sight or hearing of which we can be conscious is composed of an infinite number of impressions on the sense-organ, of which we are unconscious (see *Metaph.*, i. 349).

MINOR.—V. MAJOR.

MIRACLE (*miror*, to wonder).—An event which, without being a violation of the laws of nature, cannot be accounted for by these laws, but implies the operation of causal energy superior to their action. The distinction between the mar-

vellous and the miraculous is vital here. If, by the progress of science, occurrences deemed marvellous are transferred from the category of "miracles," a double gain is secured, extending the range of science, and clearing the definition of "miracle." (1) Etymologically, a wonder; German, *Wunder*; (2) any occurrence which excites the astonishment of the observer as apparently unaccountable, according to the ordinary laws of nature; (3) an event inexplicable under the laws of nature, which is the result of intelligent purpose and of causal energy directed by such purpose. It is distinct as objective, from subjective experience of the marvellous.

"A *miracle* I take to be a sensible operation, which being above the comprehension of the spectator, and, in his opinion, contrary to the established course of nature, is taken by men to be divine" (Locke, *A Discourse on Miracles*).

"A miracle," says Hume (*Essay on Miracles*), "is a violation of the laws of nature; and as a firm and unalterable experience has established these laws, the proof against a miracle, from the very nature of the fact, is as complete as any argument from experience can possibly be imagined; and if so, it is an undeniable consequence that it cannot be surmounted by any proof whatever derived from human testimony."

Hume's argument has been largely criticised, and has led to a more careful definition of "miracle," as related to observation of the ordinary occurrences of nature—ordinary experience being necessarily of ordinary occurrences, leaving "miracle" by its nature, and therefore in its possibility, an occurrence beyond the range of our "firm and unalterable experience" (Mosley, *On Miracles*).

MODALITY (*modus*).—The term employed to denote the most general points of view under which different objects of thought present themselves to our mind. All that we think of we think of as *possible*, *contingent*, *impossible*, or *necessary*. The *possible* is that which may equally be or not be, which is not yet, but which may be; the *contingent* is that which already is, but which might not have been; the *necessary* is that which always is, and must be; the *impossible* is that which never is, and cannot be. These are the *modalities* of being, which neces-

sarily find a place in thought, and in the expression of it in judgments and propositions. Hence arise the four *modal propositions* which Aristotle has defined and opposed (*Περὶ ἐμμενείας*, ch. xii.—xiv.). The term *modality*, though not used by him, is to be found among his commentators and the scholastic philosophers.

Our judgments, according to Aristotle, are either *problematical*, *assertive*, or *demonstrative*; or in other words, the results of *opinion*, of *belief*, or of *science*.

“The *problematical judgment* is neither subjectively nor objectively true, that is, it is neither held with entire certainty by the thinking subject, nor can we show that it truly represents the object about which we judge. It is a mere opinion. It may, however, be the expression of our presentiment of certainty; and what was held as mere opinion before proof, may afterwards be proved to demonstration. Great discoveries are problems at first, and the examination of them leads to a conviction of their truth, as it has done to the abandonment of many false opinions. In other subjects, we cannot, from the nature of the case, advance beyond mere opinion. Whenever we judge about variable things, as the future actions of men, the best course of conduct for ourselves under doubtful circumstances, historical facts about which there is conflicting testimony, we can but form a *problematical judgment*, and must admit the possibility of error at the moment of making our decision.

“The *assertive judgment* is one of which we are fully persuaded ourselves, but cannot give grounds for our belief that shall compel men in general to coincide with us. It is therefore *subjectively*, but not *objectively*, certain. It commends itself to our moral nature, and in so far as other men are of the same disposition, they will accept it likewise.

“The *demonstrative judgment* is both *subjectively* and *objectively* true. It may either be certain in itself, as a mathematical axiom is, or capable of proof by means of other judgments, as the theories of mathematics and the laws of physical science” (Thomson, *Outline of Laws of Thought*, 3rd ed., pp. 316–17).

In the philosophy of Kant, our judgments are reduced under

the four categories of quantity, quality, relation, and *modality*. In reference to *modality* they are problematic, assertory, or apodeictical. Hence the category of *modality* includes possibility and impossibility, existence and non-existence, necessity, and contingency (*cf. Critique of Pure Reason*, Meiklejohn, p. 58, *ff.*; Ueberweg, *Logic*, sec. 69).

MODE.—A *mode* is a variable and determinate affection of a substance, a quality which it may have or not, without affecting its essence or existence. A body may be at rest or in motion, a mind may affirm or deny, without ceasing to be. They are not *accidents*, because they arise directly from the nature of the substance which experiences them. Nor should they be called *phenomena*, which may have or not have their cause in the object which exhibits them. But *modes* arise from the nature of the substance affected by them.

Modes are secondary or subsidiary, as they could not be without substance, which exists by itself. Substances are not confined to any *mode*, but must exist in some. *Modes* are all variable conditions, and though some one is necessary to every substance, the particular ones are all accidental. *Modification* is properly the bringing of a thing into a *mode*, but is sometimes used to denote the *mode* of existence itself. *State* is a nearly synonymous but a more extended term than *mode*.

“*Modes*, I call such complex ideas, which, however compounded, contain not in them the supposition of subsisting by themselves, but are considered as dependencies on, or affections of, substances” (Locke, *Essay on Human Understanding*, bk. ii. ch. xii. sec. 4).

Modes or *modifications of mind*, in the Cartesian school, mean merely what some recent philosophers express by *states of mind*; and include both the *active* and *passive* phenomena of the conscious subject. The terms were used by Descartes as well as by his disciples” (Hamilton, *Reid's Works*, p. 295, note).

Spinoza distinguishes *mode* from *attribute* as follows:—“By *attribute* I understand that which the mind perceives of substance as constituting its essence. By *mode* I understand the affections of substance, or that which is in something else, through which also it is conceived” (*Ethics*, pt. i. defs. 4 and 5).

In this sense the term is applied to all particular existing things.

MOLECULE (*molecula*, a little mass), as distinguished from *atom* (*q.v.*), is the smallest particle of matter (elementary or compound) which can exist in a free state. The molecule of an element consists of similar atoms. The molecule of a compound body consists of dissimilar atoms.

MOMENT.—A necessary point or constituent in the movement of thought. According to Hegel there are three moments in every thought movement—affirmation, contradiction, absorption. This is the trilogy of the Hegelian *Logic*, according to which the movement of thought is the true philosophy of being.

MONAD (*μονάς*, unity, one).—According to Leibnitz, the elementary particles of matter are vital forces acting not mechanically, but from an internal principle. They are incorporeal atoms, inaccessible to all change from without, but subject to internal movement. This hypothesis he explains in his *Monadologie*. Thinking inert matter insufficient to explain the phenomena of body, he had recourse to the *entelechies* of Aristotle, or the *substantial forms* of the scholastic philosophy, conceiving of them as primitive forces, atoms of substance but not of matter, real and absolute unities, metaphysical points, full of vitality, *exact* as mathematical points, and *real* as physical points. These substantial unities are of a nature inferior to spirit and soul, but are imperishable, although they may undergo *transformation*.

“Leibnitz conceived the whole universe, bodies as well as minds, to be made up of *monads*, that is, simple substances, each of which is, by the Creator, in the beginning of its existence, endowed with certain active and perceptive powers. A *monad*, therefore, is an active substance, simple, without parts or figure, which has within itself the power to produce all the changes it undergoes from the beginning of its existence to eternity. The changes which the *monad* undergoes, of what kind soever, though they may seem to us the effect of causes operating from without, are only the gradual and successive evolutions of its own internal powers, which would have pro-

duced all the same changes and motions, although there had been no other being in the universe" (Reid, *Intellectual Powers*, essay ii. ch. 15).

"*Monadology* rests upon this axiom—Every substance is at the same time a cause, and every substance being a cause, has therefore in itself the principle of its own development: such is the *monad*; it is a simple force. Each monad has relation to all others; it corresponds with the plan of the universe; it is the universe abridged; it is, as Leibnitz says, a living mirror which reflects the entire universe under its own point of view. But every monad being simple, there is no immediate action of one monad upon another; there is, however, a natural relation of their respective development, which makes their apparent communication; this natural relation, this harmony which has its reason in the wisdom of the supreme director, is *pre-established harmony*" (Cousin, *History of Modern Philosophy*, ii. 85-6).—V. HARMONY.

"A *monad* is not a *material* but a *formal* atom, it being impossible for a thing to be at once material and possessed of a real unity and indivisibility. It is necessary, therefore, to revive the obsolete doctrine of *substantial forms* (the essence of which consists in *force*), separating it, however, from the various abuses to which it is liable" (tom. ii. p. 50).

Cf. Merz, *Leibnitz in Philosophical Classics*; Caird, *Philosophy of Kant*, introd., ch. v.; and *Histories of Philosophy* (Ueberweg, Schwegler, Erdmann).

MONISM (*μόνος*, alone or single), the theory of the unity of all being. There are three phases of Monism—(1) Idealistic, (2) Materialistic, (3) Pantheistic. The fundamental question involved is the true interpretation of consciousness as involving a contrast between subjective and objective existence. "The philosophical Unitarians or *Monists* reject the testimony of consciousness to the ultimate duality of the subject and object in perception, but they arrive at the unity of these in different ways. Some admit the testimony of consciousness to the equipoise of the mental and material phenomena, and do not attempt to reduce either mind to matter or matter to mind. They reject, however, the evidence of consciousness to their

antithesis in existence, and maintain that mind and matter are only phenomenal modifications of the same common substance. This is the doctrine of *absolute identity*,—a doctrine first maintained by Spinoza (*unica substantia*), and of which—though in quite different senses—the most illustrious representatives among recent philosophers are Schelling, Hegel, and Cousin. Others again deny the evidence of consciousness to the equipoise of the subject and object as co-ordinate and co-original elements; and as the balance is inclined in favour of the one relative or the other, two opposite schemes of psychology are determined. If the subject be taken as the original and genetic, and the object evolved from it as its product, the theory of Idealism is established. On the other hand, if the object be assumed as the original and genetic, and the subject evolved from it as its product, the theory of Materialism is established" (Hamilton, *Metaphysics*, lect. xvi.).—V. DUALISM, DUALITY OF CONSCIOUSNESS.

MONOTHEISM (μόνος, θεός, one God), the belief that God is essentially one.

MOOD.—V. SYLLOGISM.

MORAL (*moralis*, from *mos*, a custom), (1) the quality belonging to actions as harmonising with moral law; (2) concerned with the recognition of moral distinctions, as when, by abbreviation, we speak of moral judgments and moral sentiments (see Mill, *Essays on Religion*, p. 133).

There is a popular use of the word *moral* as applied to reasonings, according to which it is opposed to *demonstrative*, meaning *probable*, on the basis of the moral order of the universe.

In the classification of mental phenomena it is also opposed to *intellectual*. Thus we distinguish between the intellectual and the moral nature of man, and between moral habit and intellectual habit.

As applied to rules of conduct, *moral* is opposed to *positive*. "*Moral* precepts are precepts, the reasons of which we see; *positive* precepts are precepts, the reasons of which we do not see. *Moral* duties arise out of the nature of the case itself, prior to external command; *positive* duties do not arise out of

the nature of the case, but from external command ; nor would they be duties at all, were it not for such command received from him whose creatures and subjects we are" (Butler, *Analogy*, pt. ii. ch. i.).

"Why should I be moral?" (see Bradley, *Ethical Studies*, essay ii). On the distinction between actions see Spencer, *Data of Ethics*, p. 5.

MORAL FACULTY.—The power of the mind by which we obtain our knowledge of moral law. Such a power is postulated under a theory of our knowledge of moral distinctions, which regards such knowledge as a recognition of necessary truth. The theory which makes knowledge of moral distinctions a product of experience as subject to the law of pleasure and pain, does not find occasion for postulating a special power distinct from the understanding.—*V. CONSCIENCE.*

MORALITY.—The field of human action coming under the sweep of moral law.

Cf. Sully, *Sensation and Intuition*; Fowler, *Progressive Morality*; Lotze, *Microcosmus*, i. 247; Spencer, *Data of Ethics*, 75, 113; Cyples, *Process of Human Experience*, 298.

MORAL PHILOSOPHY, the science of human duty. It is the philosophy of our knowledge of moral law, of the application of such law to human life, and of our relations as moral beings. It includes all that is concerned with personality as subject to moral law.

"*Morality* commences with, and begins in, the sacred distinction between thing and person. On this distinction all law, human and divine, is grounded" (Coleridge, *Aids to Reflection*).

"Formal philosophy is called logic. Material philosophy, however, which has to do with determinate objects and the laws to which they are subject, is two-fold; for these laws are either laws of *nature* or of *freedom*. The science of the former is Physics, that of the latter Ethics" (Pref. to Kant's *Groundwork*).

A course of Moral Philosophy should include an analysis of our mental states, as our intelligence is concerned with the distinction between right and wrong; treatment of the

problems raised by the possession of such knowledge ; classification of our natural impulses or inducements to act ; discussion of the possibilities of self-control under moral law, and the results of its exercise ; exposition of the duties incumbent upon us as moral beings, and a consideration of the relations of moral beings to each other, and to the Moral Governor. Moral Philosophy must, therefore, be a Psychology, a Metaphysic, and Applied Ethics or Deontology.

The fundamental distinguishing characteristic of Ethical Theories is the basis on which they ground moral distinctions. Kant has given the following classification of Theories tested by this characteristic :—

SUBJECTIVE.

<i>External.</i>	<i>Internal.</i>
Education (Montaigne).	Physical Feeling (Epicurus).
Civil Constitution (Mandevile).	Moral Feeling (Hutcheson).

OBJECTIVE.

<i>Internal.</i>	
Perfection (Wolf and the Stoics).	Will of God (Crusius and other theological moralists).

See *Critique of Practical Reason*, Abbot, 3rd ed., p. 129 ; Semple, 3rd ed., p. 107.

MORAL SENSE.—(1) A designation of the moral faculty, used when a transition was occurring from an emotional to an intellectual theory of its nature (Shaftesbury, Hutcheson) ; (2) feeling of reverence toward moral law (Kant, *Critique of Practical Reason* ; *Metaph. of Ethics*, Semple, 3rd ed., Calderwood, p. 105). For Kant's objections to the theory of a moral sense as the moral faculty, see Kant's *Theory of Ethics*, Abbot, 3rd ed., pp. 128, 213.—*V. REVERENCE.*

MORAL SENTIMENT.—*V. SENTIMENT.*

MORPHOLOGY (μορφή, form ; λόγος). “The term *Morphology*, introduced by Goethe to denote the study of the unity of type in organic form (for which the Linnæan term *Metamorphosis* had formerly been employed), now usually covers the entire science of organic form (art. “*Morphology*,” by P. Goddes, in *Encyclopædia Britannica* (9th ed.). See

Haeckel, *Gen Morph.*, i., introd.; Spencer, *Principles of Biology*, i.).—V. BIOLOGY.

MOTION (κίνησις), change of place of a body, or of any parts of a body.

Aristotle notices four kinds of *physical* motion. Locomotion or change of place, as, when a body, remaining the same, moves from one place to another. Alteration of form, when a body from being round, becomes square. Augmentation, when a body becomes larger. Diminution, when a body becomes smaller (*De Anima*, bk. i. ch. iii. sec. 3).

Heraclitus held that all things are continually changing; while Parmenides and Zeno denied the possibility of motion.

The notion of movement or *motion*, like that of extension, is acquired in connection with the exercise of sight and touch, and of the muscular sense.

MOTIVE.—A mental impulse or internal spring of action. Desire, affection, or other internal force impelling to action. As the spring of activity, it is itself active; after its rise in consciousness, it must itself be regarded as a personal action.

The word *principle*, as signifying the true rise or origin of action, is often used as synonymous. Aristotle regards deliberate preference as the proper ἀρχή of personal action. "The deliberate preference by which we are moved to act, and not the object for the sake of which we act, is the principle of action; and desire and reason, which is for the sake of something, is the origin of deliberate preference" (Aristotle, *N. Ethic.*, lib. vi. cap. ii.).

The name motive is often improperly applied to the external object, as if it were the true moving power. "A motive is an object so operating upon the mind as to produce either desire or aversion" (Lord Kames, *Essay on Liberty and Necessity*).

The simultaneous action of a variety of motives must be regarded as combining to form the united motive force experienced in consciousness. Jonathan Edwards has given prominence to this. He says:—"By *motive* I mean the whole of that which moves, excites, or invites the mind to volition, whether that be one thing singly, or many things conjunctly. Many particular things may concur and unite their strength

to induce the mind ; and when it is so, all together are, as it were, one complex *motive*. . . . Whatever is a *motive*, in this sense, must be something that is *extant in the view or apprehension of the understanding, or perceiving faculty*. Nothing can induce or invite the mind to will or act anything, any further than it is perceived, or is in some way or other in the mind's view ; for what is wholly unperceived, and perfectly out of the mind's view, cannot affect the mind at all" (*On the Will*, pt. i. sec. 2).

Kant distinguishes between the subjective principle of appetite which he calls the mobile or spring (*die Triebfeder*), and the objective principle of the will, which he calls motive or determining reason (*Beweggrund*) ; hence the difference between *subjective ends*, to which we are pushed by natural disposition, and *objective ends*, which are common to us with all beings endowed with reason (Willm, *Hist. de la Philosoph. Allemande*). This seems to be the difference expressed in French between *mobile* and *motif*. "Whatever is deduced from the particular natural characteristics of humanity, from certain feelings and propensions, . . . may indeed supply us with a *subjective* principle on which we may have a propension and inclination to act, but not with an *objective* principle on which we should be *engined* to act, even though all our propensions, inclinations, and natural dispositions were opposed to it" (*Groundwork*, ch. ii. ; Kant's *Theory of Ethics*, Abbott, 3rd ed., p. 43). In Kant's view moral law is objective, as being superior to our reason, while given in consciousness by reason.

Roid said that he "understood a *motive*, when applied to a human being, to be that for the sake of which he acts, and therefore that what he never was conscious of, can no more be a *motive* to determine his will, than it can be an argument to convince his judgment" (*Correspondence prefixed to his Works*, p. 87). In his *Essays on the Active Powers* (Essay iv. ch. iv.), he says, "Everything that can be called a *motive* is addressed either to the animal or to the rational part of our nature, motives of the former kind are common to us with the brutes ; those of the latter are peculiar to rational beings."

What moves the will is something in the preceding state of

mind. This prior state of mind may have reference to something out of the mind. But what is out of the mind must be apprehended or contemplated—must be brought within the view of the mind, before it can affect it. It is only in a secondary or remote sense, therefore, that external objects or circumstances can be called *motives*, or be said to move the will. Motives are, strictly speaking, *subjective*,—internal states or affections of mind in the agent.

In the study of the play of motive in personal history, we must have regard to difference of degree of feeling in individuals on account of the different effect which the same objects and circumstances may have on different individuals.

One man may be slower than another to perceive the value or importance of an object presented to him, or the propriety of a course of conduct. The consequence will be, that while experiencing the same motives (*objectively* considered), one may remain comparatively indifferent, while another will at once act. These differences involve special forms of obligation in view of the absolute authority of objective law.

Green complains that much confusion has arisen from confusing *motives* with mere *desires*. He says (*Prologomena to Ethics*, pp. 106–7):—“An ambiguity in the use of this term ‘motive’ has caused much ambiguity in the controversy that has raged over ‘free-will.’ The champions of free-will commonly suppose that, before the act, a man is affected by various motives, none of which necessarily determines his act; and that between these he makes a choice which is not itself determined by any motive. Their opponents, on the other hand, argue that there is no such thing as this unmotivated choice, but that the motive which, possibly after a period of conflict with other motives, ultimately proves the strongest, necessarily determines the act. . . . As against the former view it must be urged that, however we may try to give meaning to the assertion that an act of will is a choice without a motive, we cannot do so. . . . On the other hand, the motive which is thus necessarily involved in the act of will, is not a motive in the same sense in which each of the parties to the controversy constantly use the term. It is not one of the

mere desires or aversions between which the advocates of 'free-will' supposes a man to exercise an arbitrary choice, and of which the strongest, according to the opposite view, necessarily prescribe. It is constituted by the reaction of the man's self upon these, and its identification of itself with one of them, as that by which the satisfaction forms for the time its object."

See Cyples, *Process of Human Experience*, p. 337.

MYSTICISM, from *μύω*, to shut up, or *μῦεω*, to imitate, to teach; hence *μύστης*, one initiated into *μυστήρια*, mysteries or secret doctrines. Mysticism is a term which includes all philosophical speculations on transcendent problems which break away from rigid tests of observation and experience, relying on special exaltation of the spirit, connected with personal abstraction or divine afflatus.

There is a strong current of Mysticism in the eastern religious systems of Brahminism and Buddhism. It is also a prominent feature in many forms of western thought. In Greek philosophy it does not appear till the last period, that of Neo-Platonism (*q.v.*). In the Middle Ages the tendency is seen in Bernard of Clairvaux and the Victorines. In modern times Germany has been the chief home of Mysticism; its founder there being Meister Eckhart, holding that knowledge is the union of subject and object, followed, among others, by Tauler and the writer of the *Deutsche Theologie* in the 14th century, and later by Jacob Boehme, the Theosophist.

Mysticism despairs of the regular processes of science; it believes that we may attain directly, without the aid of the senses or reason, and by immediate intuition, the real and absolute principle of all truth—God. It finds God either in nature, and hence a *naturalistic* mysticism; or in the soul, and hence a *moral* and *metaphysical* mysticism. It has also its historical views; and in history it considers especially that which represents *mysticism* under its most regular form, that is, religion; it clings not to the letter of religions, but to their spirit: hence an *allegorical* and *symbolical* mysticism. Van Helmont, father and son, and Pordage, are *naturalistic* mystics; Poiret is *moral*; Schöffler, Bourignon, and Fenelon are *divine* mystics. Boehme and Swedenborg include them all.

Mysticism in philosophy is the belief that God may be known face to face, without anything intermediate. It is a yielding to the sentiment awakened by the idea of the infinite, and a running up of all knowledge and all duty to the contemplation and love of him (Cousin, *History of Modern Philosophy*, 1st ser., vol. ii lects. ix., x.).

"Whether in the Vedas, in the Platonists, or in the Hegelians, *mysticism* is neither more nor less than ascribing objective existence to the subjective creations of our own faculties, to ideas or feelings of the mind, and believing that by watching and contemplating these ideas of its own making, it can read in them what takes place in the world without" (Mill, *Logic*, bk. v. ch. iii. sec. 4).

Joh. Bapt. van Helmont, *Februum Doctrina Inaudita*, 1642; Fr. Mar. *Opuscula Philosophica*, 1690; Jo. Pordage, *Mystic Divinitie*, 1688; Pierre Poirer, *Economie Divine*, 1680; *Theologie réelle*, 1700.

Cousin, *History of Modern Philosophy*, ii. 94-97; Schmidt (Car.), *Essai sur le Mystiques de Quatorzième siècle*, Strasbourg, 1836, as connected with Scholasticism, Ueberweg's *Hist.* (Morris) i. 356; with German thought, *ib.*, i. 467-470, and ii. 20; Jacob Boehme, Schwelger's *Hist.* (Stirling), 8th ed., p. 153; Jacob Boehme, Martensen; Vaughan's *Hours with the Mystics*; art. "Mysticism," *Ency. Brit.*, 9th ed.

MYTH (*μῦθος*, a tale, a fictitious or conjectural narrative).—A *myth* is a narrative framed for the purpose of expressing some general truth, law of nature, moral phenomenon, or religious idea, the different phases of which correspond to the turn of the narrative.

The early history and the early religion of all nations are full of fables. Hence it is that *myths* have been divided into the *traditional* and the *theological*, or the *historical* and the *religious*.

Plato has introduced the *myth* into some of his writings in a subordinate way, as in the *Protagoras*, *Gorgias*, *Republic*, and *Timæus*. He has recourse to it sometimes for artistic reasons, as in the *Protagoras*, where he prefers the "apologue" or "myth" to the "argument" as "more interesting" (320);

sometimes as a substitute for clear thought and consecutive argument, as in the *Republic*, where he pictures forth the ultimate nature of things and the value of our knowledge of them in the myth of the *Cave* (bk. vii.); sometimes to give vividness to practical truth, as in the allegorical representation of the charioteer and winged horses (*Phædrus*, p. 246).

On the philosophical value of *myths*, see Cousin, *Cours*, 1828; 1 and 15 leçons, and the *Argument* of his translation of Plato; Grote, *History of Greece*, i. 400.

NATURAL (The), that which belongs to the established order of the cosmos.

Natural has been distinguished (1) in the order of existence or history of events from **Supernatural**. "The only distinct meaning of the word *natural* is *stated, fixed, or settled*; since what is *natural* as much requires and presupposes an intelligent agent to render it so, that is, to effect it continually or at stated times, as what is supernatural or miraculous does to effect it for once" (Butler, *Analogy*, pt. 1. ch. i.).

(2) In the order of knowledge, from **Innate, Instinctive, or Intuitive**, as representing knowledge of the things of nature by ordinary use of our observational powers. Thus Locke, in his polemic against innate ideas, says:—"There is a great deal of difference between an *innate law* and a *law of nature*; between something imprinted on our minds in their very original, and something that we, being ignorant of, may attain to the knowledge of by the use and application of our *natural* faculties. And I think they equally forsake the truth who, running into contrary extremes, either affirm an *innate law*, or deny that there is a law knowable by the *light of nature*, without the help of positive revelation" (*Essay*, bk. i. ch. iii. sec. 13).

(3) In the order of powers from the **Acquired**. Thus Reid says:—"Of the various powers and faculties we possess, there are some which nature seems both to have planted and reared, so as to have left nothing to human industry. Such are the powers which we have in common with the brutes, and which are necessary to the preservation of the individual, or to the continuance of the kind. There are other powers, of which

nature hath only planted the seeds in our minds, but hath left the rearing of them to human culture" (Reid, *Inquiry*, ch. i. sec. 2).

But acquired powers must also in a sense be regarded as natural. Thus Stewart has said :—"Whatever ideas, whatever principles we are *necessarily* led to acquire by the circumstances in which we are placed, and by the exercise of those faculties which are essential to our preservation, are to be considered as parts of human nature, no less than those which are implanted in the mind at its first formation" (Stewart, *Active and Moral Powers*, i. 351, *Works*).

"Acquired perceptions and sentiments may be termed *natural*, as much as those which are commonly so called, if they are as rarely found wanting" (Mackintosh, *Prelim. Dissert.*, p. 67).

(4) In the classification of products from the Artificial, (a) in a better sense, as the product of art in its imitation of Nature; (b) in a worse sense, as unnatural and misleading. The antithesis of *nature* and *art* is a celebrated doctrine in the peripatetic philosophy. Natural things are distinguished from artificial, inasmuch as they have what the latter are without, an intrinsic principle of formation (Aristotle, *De Gen. Anim.*, ii. cap. i.).

NATURALISM, the name given to those systems of the philosophy of *nature* which explain all phenomena by a blind force acting necessarily, maintaining that Nature carries within itself its own explanation. It is characteristic of all materialistic systems, *e.g.*, those of the ancient atomists, and those of the French Materialists of the *Illumination* in modern philosophy.

Naturalism is opposed to *Transcendentalism* or *Idealism* (Absolute). It recognises no elements, either in the sphere of knowledge or of conduct, beyond those which are given by experience. Spencer, *e.g.*, is a *Naturalist* in this sense (see Sorley, *Ethics of Naturalism*).

NATURAL LAW.—By a *Law of Nature* is meant, (1) in the physical sense, a fixed order of events in the universe as cosmos; (2) in the juridical sense, a law of human conduct

recognised by the light of intelligence prior to judicial enactments, *consensus gentium*, affording a basis for guidance of legislation by the respective nations. It was long called the *law of nature and of nations*, because it is natural to men of all nations.

Quod naturalis ratio inter omnes homines constituit, id apud omnes populos peræque custoditur, vocaturque jus gentium; quasi quo jure omnes gentes utuntur (Gaius).

According to Grotius, "*Jus Naturale est dictatum rectæ rationis, indicans, actui alicui, ex ejus convenientia, vel inconvenientia cum ipsa natura rationali, inesse moralem turpitudinem, aut necessitatem moralem; et consequenter ab auctore nature, ipso Deo, talem actum aut vetari aut præcipi.*"

By the phrase, *law of nations*, is now meant international law, and by the *law of nature*, natural law. By the latter phrase it is not meant that there is a regular system or code of laws made known by the light of nature in which all men acquiesce, but that certain great principles are universally acknowledged, in accordance with which men feel bound to regulate their conduct.

"*Jus gentium* is used to denote, not international law, but positive or instituted law, so far as it is common to all nations. When the Romans spoke of international law, they termed it *Jus Feciale*, the law of heralds, or international envoys" (Whewell, *Morality*).

Selden, *De Jure Naturali*, lib. i. cap. iii.; Grotius, *De Jure Belli et Pacis*, Prolegom., secs. 5, 6, lib. i. cap. i. sec. 10; Puffendorff, *De Officio Hominis et Civis*, lib. iii. cap. iii.; Sanderson, *De Oblig. Conscientiæ*, Prælect. Quarta, secs. 20-24; Tyrell, *On Law of Nature*; Culverwell, *Discourse on the Light of Nature*; Lorimer, *Institutes of Law*; Maine's *Ancient Law*, ch. iii. and iv. On the relation of the laws of nature to the laws of mind, see Drummond's *Natural Law in the Spiritual World*.

NATURE.—The cosmos, the entire system of existence in the midst of which we find ourselves.

"The term *nature* is used sometimes in a wider, sometimes in a narrower extension. When employed in its most ex-

tensive meaning, it embraces the two worlds of mind and matter. When employed in its more restricted signification, it is a synonym for the latter only, and is then used in contradistinction to the former. In the Greek philosophy, the word *φύσις* was general in its meaning; and the great branch of philosophy, styled '*physical* or *physiological*,' included under it not only the sciences of matter, but also those of mind. With us the term *nature* is more vaguely extensive than the terms *physics*, *physical*, *physiology*, *physiological*, or even than the adjective *natural*; whereas in the philosophy of Germany, *Natur* and its correlatives, whether of Greek or Latin derivation, are, in general, expressive of the world of matter in contrast to the world of intelligence" (Hamilton, *Reid's Works*, p. 216, note; cf. Mill, *Essays on Religion*, 6).

For the different senses in which the phrase "*human nature*" may be understood, and the proper meaning of the maxim, follow nature, as applied to the direction of conduct, see Butler, *Three Sermons on Human Nature*.

"*Nature*," says Reid (*Active Powers*, essay i. ch. v.), "is the name we give to the efficient cause of innumerable effects which fall daily under our observation."

The Scholastics distinguished between *Natura Naturans* and *Natura Naturata*. By the former term they meant God, as the author of nature; by the latter, all created things, both mind and matter. Spinoza adopted the distinction, and modified it in accordance with his own philosophy. By *Natura Naturans* he meant God in His essential nature, i.e., in His attributes; by *Natura Naturata*, "all that which follows from the necessity of the Divine nature," i.e., the modes of the attributes of God. Schelling calls his philosophy, in its first and most characteristic form, Philosophy of Nature (*Naturphilosophie*).

NATURE OF THINGS (Foundation of Virtue in). An Ethical Theory, which finds the basis of moral distinctions in the nature of things themselves, and not in phase of feeling peculiar to man. It regards morality as part of the order of the cosmos, and capable of being interpreted in this relation.

The following may be given as an outline of the views of

those philosophers—Cudworth, Clarke, Price, and others—who place the foundation of virtue in the nature, reason, and fitness of things :—

“Everything is what it is, by having a nature. As all things have not the same nature, there must be different *relations, respects, or proportions*, of some things towards others, and a consequent *fitness or unfitness*, in the application of different things, or different relations, to one another. It is the same with *persons*. There is a *fitness or suitableness* of certain circumstances to certain *persons*, and *unsuitableness* of others. And from the different relations of *different persons to one another*, there necessarily arises a *fitness or unfitness* of certain *manners of behaviour* of some persons towards others, as well as in respect to the things and circumstances with which they are surrounded. Now, we stand in various relations to God, as our Creator, our Preserver, our Benefactor, our Governor, and our Judge. We cannot contemplate these relations, without seeing or feeling a Rectitude or Rightness in cherishing certain affections and discharging certain services towards Him, and a Wrongness in neglecting to do so, or in manifesting a different position, or following a different course of action. We stand, also, in various relations to our fellow-creatures ; some of them inseparable from our nature and condition as human beings, such as the relations of parent and child, brother and friend ; and others which may be voluntarily established, such as the relations of husband and wife, master and servant. And we cannot conceive of these relations without at the same time seeing a Rectitude or Rightness in cherishing suitable affections and following a suitable course of action. Not to do so we see and feel to be Wrong. We may even be said to stand in various relations to the objects around us in the world ; and, when we contemplate our nature and condition, we cannot fail to see, in certain manners of behaviour, suitableness or unsuitableness to the circumstances in which we have been placed. Now, Rectitude or conformity with those relations which arise from the nature and condition of man, is nothing arbitrary or fictitious. It is founded in the nature of things. God was under no necessity to create human

beings. But, in calling them into existence, he must have given them a nature, and thus have constituted the relations in which they stand to Him and to other beings. There is a suitableness or congruity between these relations and certain manners of behaviour. Reason, or the Moral Faculty, perceives and approves of this suitableness or congruity. The Divine mind must do the same, for the relations were constituted by God; and conformity to them must be in accordance with His will. So that Conscience, when truly enlightened, is a ray from the Divine Reason; and the moral law which it reveals to us is Eternal and Immutable as the nature of God and the nature of things" (Fleming's *Manual of Moral Philosophy*, p. 124).

NECESSARY TRUTH.—V. À PRIORI.

NECESSITY (*necesse*).—The inevitable, the fixed, the determined. (1) *Natural* necessity, according to the laws of nature, invariable sequence in external events; (2) *Logical* necessity, according to the laws of our intelligence; (3) *Moral* necessity, according to the absolute requirements of moral law.

NECESSITARIANISM.—The doctrine that the action of Will is not free in the government of human conduct, but that all volitions follow by invariable sequence from internal motives, as events in the material universe follow by fixed natural law. J. S. Mill regards the word Determinism as preferable to Necessitarianism, because, while volitions, as all other events, follow a fixed order of sequence, we are unable to say that so they *must*.

"The phrase *moral necessity* is used variously; sometimes it is used for *necessity* of moral obligation. So we say a man is under *necessity* when he is under bonds of duty and conscience from which he cannot be discharged. Sometimes by *moral necessity* is meant that sure connection of things that is a foundation for infallible certainty. In this sense *moral necessity* signifies much the same as that high degree of probability, which is ordinarily sufficient to satisfy mankind in their conduct and behaviour in the world. Sometimes by *moral necessity* is meant that *necessity* of connection and consequence which arises from such moral causes as the strength

of inclination or motives, and the connection which there is in many cases between them, and such certain volitions and actions. It is in this sense that I use the phrase *moral necessity* in the following discourse" (Edwards, *Works*, i. 116).

"There are two schemes of *necessity*—the necessitation by *efficient*—the necessitation by *final* causes. The former is brute or blind Fate; the latter, rational Determinism. Though their practical results be the same, they ought to be carefully distinguished" (Hamilton, *Reid's Works*, p. 87, note).

Leibnitz, in his Fifth Paper to Clarke, distinguishes between—(1) *Hypothetical necessity*, as opposed to absolute *necessity*, as that which the supposition or the hypothesis of God's foresight and pre-ordination lays upon future contingents. (2) *Logical, metaphysical, or mathematical necessity*, which takes place because the opposite implies a contradiction; and (3) *Moral necessity*, whereby a wise being chooses the best, and every mind follows the strongest inclination.

Clarke replies:—"The question is not, whether a thing *must* be, when it is *supposed* that it *is*, or that it is *to be* (which is *hypothetical necessity*). Neither is the question whether it be true, that a *good* being, continuing to be *good*, cannot do evil; or a *wise* being, continuing to be *wise*, cannot act unwisely; or a *veracious* person, continuing to be *veracious*, cannot tell a lie (which is *moral necessity*). But the true and only question in philosophy concerning liberty is, whether the *immediate physical cause, or principle of action*, be indeed in him whom we call the agent; or whether it be some other *reason*, which is the *real cause* by operating upon the agent, and making him to be not indeed an *agent*, but a mere *patient*" (see Bradley, *Ethical Studies*, p. 13).

NEGATION (*nego*, to deny), denial (1) of the truth of a proposition, (2) of the existence of an object. Like Affirmation it is characteristic of Judgment.

In simple apprehension there is no affirmation or denial, so that, strictly speaking, there are no purely negative ideas, notions, or conceptions. In truth, some so called represent the most positive realities; as infinity, immensity, immortality, &c. But in some ideas, as in that of blindness, deafness, insensibility, there is, as it were, a taking away of something

from the object of which these ideas are entertained. But this is privation (*στέρησις*) rather than *negation* (*ἀπόφασις*). And in general it may be said that *negation* implies some anterior conception of the object of which the *negation* is made. Absolute *negation* is impossible. We have no idea of nothing. It is but a word (*Dict. des Sci. Phil.*).

Hamilton makes our notion of the Infinite "a negative notion (the concept of a thing by what it is not)" (*Discussions*, p. 28; *Lects.*, ii. 373. The position is vindicated, *Letter to Calderwood*, *Metaph.*, ii. 534. See also Mansel, *Proleg. Logica* and *Limits of Religious Thought*, lect. iii. p. 45. In opposition to this view, Calderwood's *Phil. of the Infinite*, 3rd ed., p. 272; Young's *Province of Reason*, p. 99; Bolton, *Inquisitio Philosophica*, p. 182; Porter, *The Human Intellect*, pp. 531 and 652).

NEGATIVE INSTANCE.—A case of a phenomenon which contradicts the law which has been hypothetically assumed as the law of the phenomenon, thus rendering necessary either its rejection or its modification. The great distinction between scientific Induction and the old *Inductio per Enumerationem Simplicem* consists in the fact, that the former attends to, while the latter overlooks, negative instance.—V. INDUCTION.

NEO-PLATONISM.—The last phase of ancient philosophy, though rather of the nature of a Theosophy or religious Mysticism than philosophy proper. The attempted explanation of Greek Philosophy having been dissolved in Scepticism, and its free objective standpoint abandoned for the subjectivism of the post-Aristotelian schools, *Neo-platonism* is the giving up of the problem as one of pure thought, and the attempt to reach a solution in mystic experience. This latter is called *Ecstasy*, and involves the loss of the distinction between subject and object, the loss of self-consciousness, in union with God. God is the One, above the world, even above reason; and the world is conceived as an *Emanation* from God. The Ethical teaching of Neo-Platonism is ascetic, the duty of gradual emancipation from matter, and final absorption in the Divine. Its chief representatives are Plotinus, Porphyry, Jamblichus, and Proclus (see Schwegler, *History of Philosophy*, pp. 138, 143; Ueberweg, *History of Philosophy*, vol. i.).

NIHILISM (*nihil*, *nihilum*, nothing), the denial of all existence.

"If the testimony of consciousness be *wholly* rejected, that is, if nothing but the phenomenal reality of the fact (of consciousness) itself be allowed, the result is *Nihilism*. This may be conceived either as a dogmatical or as a sceptical opinion; and Hume and Fichte have completely shown, that if the thought of consciousness be not unconditionally recognised, Nihilism is the conclusion in which our speculation, if consistent with itself, must end" (Hamilton, *Reid's Works*, note A, p. 748).

As a *social theory*, Nihilism is an extreme form of *Socialism* (*q.v.*). Its creed is, in theory and in practice, the necessity of levelling all social distinctions, and abolishing all established institutions. It limits itself to mere negation, and does not advance any constructive views.

"The sum total," says Fichte, "is this. There is absolutely nothing permanent either without me or within me, but only an unceasing change. I know absolutely nothing of any existence, not even of my own. I myself know nothing, and am nothing. Images (*Bilder*) there are; they constitute all that apparently exists, and what they know of themselves is after the manner of images; images that pass and vanish without there being ought to witness their transition; that consist in fact of the images of images, without significance and without an aim. I myself am one of these images; nay, I am not even thus much, but only a confused image of images. All reality is converted into a marvellous dream without a life to dream of, and without a mind to dream; into a dream made up of a dream itself. Perception is a dream; thought, the source of all the existence and all the reality which I imagine to myself of *my* existence, of my power, of my destination—is the dream of that dream" (Hamilton, *Reid's Works*, p. 129, note).

NOMINALISM (*nomen*, a name) is the doctrine that general notions have no objective realities corresponding to them, and have no existence but as names or words. The doctrine directly opposed to it is *Realism* (*q.v.*). To the intermediate doctrine of *conceptualism* (*q.v.*) nominalism is closely

allied. It may be called the envelope of conceptualism, while conceptualism is the letter or substance of nominalism. "If nominalism sets out from conceptualism, conceptualism should terminate in nominalism," says Cousin, *Introd. aux Ouvrages inédits d'Abailaird*.

Universalis ante rem, is the watchword of the *Realists*; *Universalis in re*, of the *Conceptualists*; *Universalis post rem*, of the *Nominalists*.

Roscellinus, often styled the founder of *Nominalism*, in the 11th century applied it to the doctrine of the Trinity. It was revived in the 14th century by William of Occam.

In asserting that universals exist but only in the mind, Occam agreed exactly with the modern *Conceptualists*.

NOMOLOGY (νόμος, λόγος).—If we analyse the mental phenomena with the view of discovering and considering, not contingent appearances, but the *necessary* and *universal* facts, *i.e.*, the laws by which our faculties are governed to the end that we may obtain a criterion by which to judge or to explain their procedures and manifestations—we have a science which we may call the *Nomology* of mind,—*Nomological Psychology* (Hamilton, *Metaph.*, lect. vii.). The term, however, has not been generally adopted.

NON SEQUITUR (it does not follow; the inference is not necessary). An inconclusive inference.—*V. FALLACY*.

NOOLOGY (νοῦς, mind; λόγος). Hamilton says (*Reid's Works*, note A, sec. v. p. 769):—"The correlatives *noetic* and *dianoetic* would afford the best philosophical designations, the former for an intuitive principle, or truth at first hand; the latter for a demonstrative proposition, or truth at second hand. *Noology* or *noological*, *dianoiology* and *dianoiological*, would be also technical terms of much convenience in various departments of philosophy." The term, however, has not been adopted by other writers.

NORM (*norma*, a square or rule of builders); (1) a law of existence; (2) the fixed type of an order of beings. Anything in accordance with law is said to be *normal*; anything not in accordance with law is said to be *abnormal*.

NOTION (*nosco*, to know, *Begriff*).—The form of general-

ised knowledge, such as that which stands for a genus. We might say, a general conception, but for the consideration that "Conception" (*Vorstellung*) is better kept for the mental representation of an individual object. Thus Ueberweg distinguishes between "the individual conception or intuitive, in its relation to the objective individual existence," and "the notion according to conduct and extent in its relation to the objective essence and to the genus." Notion and conception have, however, been commonly used as synonymous.

Locke says :—"The mind being once furnished with simple ideas, it can put them together in several compositions, and so make variety of complex *ideas*, without examining whether they exist so together in nature, and hence I think it is that these *ideas* are called *notions*, as they had their original and constant existence more in the thoughts of men than in the reality of things" (*Essay*, bk. ii. ch. xxii. sec. 2).

Berkeley distinguishes carefully between "Notion" and "Idea." His *idea* is equivalent to the genus *Vorstellung* (object of sense or imagination); his *notion* is an intelligent apprehension of Mind, and of relations among phenomena" (Fraser, *Selections*, p. 57, note).

"The distinction of *ideas*, strictly so called, and *notions* is one of the most common and important in the philosophy of mind. Nor do we owe it, as has been asserted, to Berkeley. It was virtually taken by Descartes and the Cartesians, in their discrimination of ideas of imagination, and ideas of intelligence; it was in terms vindicated against Locke, by Serjeant, Stillingfleet, Norris, Z. Mayne, Bishop Brown, and others. Bonnet signalled it; and under the contrast of *Anschaungen* and *Begriffe*, it has long been an established and classical discrimination with the philosophers of Germany. Nay, Reid himself suggests it in the distinction he requires between *imagination* and *conception*,—a distinction which he unfortunately did not carry out, and which Mr Stewart still more unhappily again perverted. The terms *notion* and *conception* (or more correctly *concept* in this sense) should be reserved to express what we comprehend but cannot picture in *imagination*, such as a relation, a general term, &c." (Hamilton, *Reid's Works*, p. 291, note).

Notion is more general in its signification than *idea*. *Idea* is merely a *conception*, or at most a *necessary* and *universal* conception. *Notion* implies all this and more,—a judgment or series of judgments, and a certain degree of knowledge of the object. It began to be used by Descartes in his *Regulæ ad Directionem Ingenii*, and soon came into current use among French philosophers. It enables us to steer clear of the *ideas* of Plato, of the *species* of the scholastics, and of the *images* of the empirical school. Hence Dr Reid tells us that he used it in preference (*Dict. des Sci. Phil.*).

Chalybæus, in a letter to Eddersheim (the translator of his work), says:—"In English as in French, the word *idea*, *idée*, is applied, without distinction, to a representation, to a *notion*, in short to every mental conception; while in German, in scientific language, a very careful distinction is made between sensuous '*vorstellung*' (representation), abstract '*verstandesbegriff*' (intellectual notion), and '*ideen*' (ideas), of reason."

First and Second Notions.

"The distinction (which we owe to the Arabians) of *first* and *second notions* (*notiones*, *conceptus*, *intentiones*, *intellecta prima et secunda*) is necessary to be known, not only on its own account, as a highly philosophical determination, but as the condition of any understanding of the scholastic philosophy, old and new, of which, especially the logic, it is almost the alpha and omega. . . . A *first notion* is the concept of a thing *as it exists of itself*, and independent of any operation of thought; as man, John, animal, &c. A *second notion* is the concept, not of an object as it is in reality, but of the *mode under which it is thought by the mind*; as individual, species, genus, &c. The former is the *concept of a thing, real, immediate, direct*; the latter the *concept of a concept, formal, mediate, reflex*" (Hamilton, *Discussions*, p. 139, note).

"*Notions* are of two kinds; they either have regard to *things as they are*, as horse, ship, tree, and are called *first notions*; or to things as they are *understood*, as notions of genus, species, attribute, subject, and in this respect are called *second notions*, which, however, are based upon the first, and cannot be con-

ceived without them. . . . Now logic is not so much employed upon *first* notions of things as upon *second*; that is, it is not occupied so much with things as they exist in nature, but with the way in which the mind conceives them" (Thomson, *Laws of Thought*, 3rd ed., pp. 30, 31).

Notions, Intuitive and Symbolical.

"Where our *notion* of any object or objects consists of a clear insight into all its attributes, or at least the essential ones, Leibnitz would call it *intuitive*. But where the *notion* is complex and its properties numerous, we do not commonly realise all that it conveys; the powers of thinking would be needlessly retarded by such a review. We make use of the name commonly given to the notion as a symbol, even for ourselves, of all the properties it possesses. A name, then, employed in thought, is called a *symbolical cognition*, and the names we employ in speech are not always symbols to another of what is explicitly understood by us, but quite as often are symbols both to speaker and hearer, the full and exact meaning of which neither of them stops to unfold, any more than they regularly reflect that every sovereign which passes through their hands is equivalent to 240 pence. Such words as the State, Happiness, Liberty, Creation, are too pregnant with meaning for us to suppose that we realise their full sense every time we read or pronounce them. If we attend to the working of our minds, we shall find that each word may be used, and in its proper place and sense, though perhaps few or none of its attributes are present to us at the moment. A very simple *notion* is always *intuitive*; we cannot make our *notion* of brown or red simpler than it is by any symbol. On the other hand, a highly complex notion, like those named above, is seldom fully realised—seldom other than *symbolical*" (Thomson, *Laws of Thought*, 3rd ed., pp. 46, 47).

Leibnitz was the first to employ *intuitive* and *intuition* to denote our direct ostensive cognitions of an individual object either in sense or imagination, and in opposition to our indirect and *symbolical* cognitions acquired in the understanding through the use of signs or language. This involves a misapplication of the word "notion." The term must always indicate repre-

sentative or mediate, and therefore symbolic, knowledge; we may speak of cognitions, intuitive and symbolical, but not of intuitive notions. The passage occurs in the *Meditationes de Cognitione, Veritate et Ideis*, and "*cognitio*" is the word at first employed by Leibnitz, though he does afterwards use *notio* (Leibnitii, *Opera Philosophica*, Erdmann, p. 79).

NOTIONES COMMUNES, also called *prænotiones*, *anticipationes*, *communes notitiæ*, *πολλήψεις*, *κοινὰ ἔννοιαι*—first truths, natural judgments, principles of common sense, are phrases employed to denote certain notions or cognitions which are native to the human mind, which are intuitively discerned, being clear and manifest in their own light, and needing no proof, but forming the ground of truth and evidence as to other truths.—V. COMMON SENSE.

NOUMENON (τὸ νοδύμενον, νοέω, to perceive).—The thing in itself, the real object to which the qualities recognised by us belong. In the philosophy of Kant, *Noumenon* is an object in itself, not relatively to us. But, according to Kant, we have no knowledge of things in themselves. For, besides the impressions which things make on us, there is nothing in us but the forms of the sensibility and the categories of the understanding, so that, of necessity, we form our conceptions of things in accordance with these three.

Kant states his position thus:—"The undetermined object of an empirical intuition is called *phenomenon*. That which in the phenomenon corresponds to the sensation, I term its *matter*; but that which effects that the contents of the phenomenon can be arranged under certain relations, I call its *form*" (*Critique of Pure Reason*, Meiklejohn's transl., p. 21). "The empirical intuition is a mere phenomenon in which nothing that can appertain to a thing in itself can be found; . . . in the whole range of the sensuous world, investigate the nature of its objects as profoundly as we may, we have to do with nothing but phenomena" (*ib.*, p. 36). So also with the mind, or knowledge of self. "The subject intuits itself, not as it would represent itself immediately and spontaneously, but according to the manner in which the mind is internally affected, consequently, as it appears, and not as it is" (*ib.*, 41).

"The conception of a *noumenon*, that is, of a thing which must be cogitated, not as an object of sense, but as a thing in itself, solely through the pure understanding, is not self-contradictory for we are not entitled to maintain that sensibility is the only possible mode of intuition. . . . Things in themselves, which lie beyond the province of sensuous cognition, are called *noumena*, for the very purpose of indicating that this cognition does not extend its application to all that the understanding thinks" (*ib.*, pp. 186-87). For Kant's distinction between cognising and thinking, see p. xxxiii., pref. to 2nd ed.

This is Kant's finding as regards the *intellectual* sphere; in that of the *practical* reason, as concerned with ethical life, we realise that we belong to the noumenal world; the *negative* noumenon of knowledge thus becomes the *positive* noumenon of moral life (preface to 2nd ed. of *Critique of Pure Reason*, pp. xxxi. and xxxiii., Meiklejohn's transl.). Accordingly, Kant says—"In the ordinary practical use of the word *right*, we are not conscious of the manifold representations comprised in the conception. But we cannot for this reason assert that the ordinary conception is a sensuous one, containing a mere phenomenon; but the conception of it lies in the understanding, and represents a property (the moral property) of actions, which belongs to them in themselves" (*ib.*, p. 36).

Dr Hutchison Stirling summarises thus:—"A phenomenal world implies a noumenal, and the assumption of such is absolutely necessary in order duly to subordinate and limit the pretensions of sense. It does not follow, nevertheless, that its phenomenal nature attaches any character of uselessness and meaninglessness to this, the world of time, which we in time inhabit. Here, as evidence from every side assures us, existence is but probationary. . . . Under *reason* we shall discover those relations to the necessary unconditioned, that round and complete our world as an object of intellect. Our *practical critique*, again, will introduce us to the veritable noumenal world; while our inquiry into *judgment* will mediate and justify transition from the one world to the other" (*Text-Book to Kant*, p. 110; see Adamson's *Philosophy of Kant*, lect. iii.).—V. PHENOMENON.

NUMBER was held by Pythagoras to be the ultimate principle of being. His views were adopted to a certain extent by Plato, and attacked by Aristotle. In the Middle Ages, *numbers*, and the proportions subsisting between them, were employed in the systems of the alchemists and cabalists. But, in proportion as the true spirit of philosophy prevailed, *numbers* were banished from metaphysics, and the consideration of them was allotted to a separate science—arithmetic and algebra. According to Locke, *Number* is one of the *Primary Qualities* of Matter. He devotes ch. xvi. of bk. ii. of his *Essay* to its consideration.

OBJECT, OBJECTIVE (*objicio*, to throw against).—*Object* and *subject* are, etymologically, opposites and correlatives, the one standing over against the other; Objective pertaining to the object. (1) In Logical usage, object, *ἀντικείμενον*, was that which was the opposite to some other thing, *oppositum*; (2) in Psychological usage there has been a reversal of the significance of the correlative terms, according to the changing forms of the theory of knowledge. (a) Earlier use,—that which the mind contemplates, whether as presented though our sensibilities, or though the understanding; that which the mind *makes*, or “objectifies.” According to this, objective applies to *all* that belongs to this object, which may be the representative, “idea,” or conception of that which, existing externally, is the “substance” or “subject.” (b) Current use,—object is the thing known, as distinguished from the mind which knows; the separate reality, the existence as apart from the knower, called “the substance,” under earlier usage. “Objective” here signifies, pertaining to the object known; whereas “subjective” means pertaining to the mind.

Objective has thus come to mean that which has independent existence or authority, apart from our experience or thought. Thus moral law is said to have *objective authority*; that is, authority belonging to itself, and not drawn from anything in our nature.

In the Middle Ages, *subject* meant *substance*, and this sense is preserved in Descartes and Spinoza, sometimes even in Reid. By William of Occam, e.g., *objective* denotes that which the

mind feigns; viz, the idea, image, or subjective representation, as opposed to the real object which exists independently, or, in Cartesian language, *formally*. This shows what is meant by *realitas objectiva* in Descartes (*Med.* 3) (see Veitch's *Descartes*, note iii.).

The modern usage is due chiefly to the influence of Kant, who, holding that the object known must conform to the constitution of the knowing subject, set himself to the analysis of the relations between the *objective* and the *subjective* in knowledge (see preface to 2nd ed. *Critique of Pure Reason*, p. xxviii., Meiklejohn's transl.). Knowledge itself has thus a subjective side and an objective.

"The employment of *object* for purpose or final cause (in the French and English languages) is to be absolutely condemned, as a recent and irrational confusion of notions which should be carefully distinguished" (Hamilton, *Reid's Works*, p. 97, and app., note B, sec. 1; cf. Lotze, *Logic*, p. 11, Bosanquet's transl.).
—V. SUBJECTIVE.

OBLIGATION (*obligo*, to bind).—Personal subjection to the authority of law; oughtness; duty. (1) The relation of moral life to moral law; (2) a definite or special phase of this subjection, in view of circumstances or under personal contract; (3) a requirement under authority of civil law.

Whewell, *Foundation of Morals*; Chalmers, *Bridgewater Treatise*; Kant's *Groundwork*, ch. ii.; Warburton's *Divine Legislation*, bk. i. sec. 4; Stewart's *Active and Moral Powers*, bk. ii. ch. vi.

A doctrine of moral obligation presents the great difficulty in the construction of a Utilitarian theory of morals. How the difficulty has been met may be seen from Mill's *Utilitarianism*, p. 40:—"Why am I bound to promote the general happiness? This difficulty will always present itself, until the influences which form moral character have taken the same hold of the principle which they have taken of some of the consequences." This shuns the difficulty; shifting it from a philosophic problem, and making it a matter of personal attainment. Bain makes obligation refer "to the class of actions enforced by the sanction of punishment" (*Emotions and Will*, 3rd ed., p. 264).—V. DUTY.

OBSCURER.—*V.* **CLEAR.**

OBSCURER PERCEPTIONS.—*V.* **PERCEPTION.**

OBSERVATION,—(1) commonly, attention directed upon external objects, as distinguished from *Reflection* or *Introspection*, i.e., attention directed upon mental operations. Thus we speak of “observational sciences” meaning physical sciences; (2) attention, whether its object be external or internal,—according to which Psychology is an observational science. The importance of *Observation* in the acquisition of scientific truth was emphasised by Bacon, who distinguished between *active* and *passive* observation (*Nov. Org.*, i. aph. 100). Herschel makes the same distinction, instead of the usual one between *Experiment* and *Observation*. Quite correctly, *observation* is made to include attention directed upon what is within, as well as upon what is without.

“The difference between *experiment* and *observation* consists merely in the comparative rapidity with which they accomplish their discoveries; or rather in the comparative command we possess over them, as instruments for the investigation of truth” (Stewart, *Phil. Essays*, Prelim. Dissert., ch. ii.).

“The business of experiment is to extend the sphere of *observation*, and not to take up a subject where *observation* lays it down” (Bailey, *Theory of Reasoning*, 115).—*V.* **EXPERIMENT.**

OBVERSION.—*V.* **PERMUTATION.**

OCCASION.—Opportunity for action, as afforded by the presence of conditions favourable to its performance. *Occasion* is to be distinguished from *Cause*, as ἀρχὴ from αἰτία.

“Between the real *cause* and the *occasion* of any phenomenon there is a wide diversity. The one implies the *producing power*, the other only some *condition* upon which this power comes into exercise. If I cast a grain of corn into the earth, the occasion of its springing up and producing plant, ear, and grain, is the warmth and moisture of the soil in which it is buried; but this is by no means the cause. The cause lies in the mysterious vital power which the seed contains within itself; the other is but the condition upon which this cause produces the effect” (Morell, *Specul. Phil.*).

OCCASIONAL CAUSES (Doctrine of).—*V.* **CAUSE.**

ONTOLOGY (*ὄν* and *λόγος*), the science of Being—Metaphysics.

The name *ontology* seems to have been first made current in philosophy by Wolff. He divided metaphysics into four parts—*ontology*, rational psychology, rational cosmology, and rational theology. Ontology was chiefly occupied with abstract inquiries into possibility, necessity, and contingency, substance, accident, cause, &c., without reference to the laws of our intellect by which we are constrained to believe in them. Ontology is thus the science of principles and causes, that is of the principles and causes of being.

Ancient philosophy is characteristically *ontological*, i.e., it is an inquiry into the principles of Being. Thus Aristotle, though he does not use the name, defines the *philosophia prima* as *ἐπιστήμη τοῦ ὄντος ἢ ὅντος*—*Scientia Entis quatenus Entis*, that is, the science of the essence of things; the science of the attributes and conditions of being in general, not of being in any given circumstances, as physical or mathematical, but as being. *Modern* philosophy, on the contrary, generally approaches the problem of Being through that of Knowledge; it is, as in Locke and Kant, first a theory of Knowledge, and afterwards a theory of Existence, the former being the basis of the latter.

According to the Wolffian school, as above stated, metaphysics contains, besides Ontology, three co-ordinate branches of inquiry,—Rational Cosmology, Rational Psychology, and Rational Theology. The first aims at a knowledge of the real essence, as distinguished from the phenomena of the material world; the second discusses the nature and origin, as distinguished from the faculties and affections, of the human soul and of other finite spirits; the third aspires to comprehend God himself, as cognisable *à priori* in his essential nature, apart from the direct and relative indications furnished by his works, as in Natural Theology, or by his Word, as in Revealed Religion.

“These three objects of metaphysical inquiry, God, the World, the Mind, correspond to Kant’s three Ideas of the Pure Reason; and the object of his *Critique* is to show that, in relation to all these, the attainment of a system of speculative philosophy is impossible” (Mansel, *Proleg. Log.*).

OPERATIONS (of the Mind).—The active exercises of the mind, in contrast with its passive experiences. “By the *operations of the mind* we understand every mode of thinking of which we are conscious” (Reid, *Intellectual Powers*, essay i. ch. i.).

Operation, *act*, and *energy* are nearly convertible terms, and are opposed to *faculty*, as the *actual* to the *potential* (Hamilton).

“The various modes of thinking have always and in all language, as far as we know, been called by the name of *operations of the mind*, or by names of the same import. To body we ascribe various properties, but not *operations* properly so called.”

OPINION (*opino*, to think) —Unverified Thought. “The essential idea of *opinion* seems to be that it is a matter about which doubt can reasonably exist, as to which two persons can without absurdity think differently. . . . Any proposition, the contrary of which can be maintained with probability, is matter of opinion” (Sir G. C. Lewis, *Essay on Opinion*).

Locke defines *Opinion*, which he identifies with *Belief* or *Assent*, as “the admitting or receiving any proposition for true upon arguments or proofs that are found to persuade us to receive it as true, without certain knowledge that it is so. . . . That which makes me believe is something extraneous to the thing I believe” (*Essay*, bk. iv. ch. xv. sec. 3).

So Kant: “*Opinion* is a consciously insufficient judgment, subjectively as well as objectively. *Belief* is subjectively sufficient, but is recognised as being objectively insufficient. *Knowledge* is both subjectively and objectively sufficient. Subjective sufficiency is termed *conviction* (for myself); objective sufficiency is termed *certainty* (for all)” (*Critique of Pure Reason*, p. 498, Meiklejohn).

This modern account of Opinion is essentially the same as Plato's. Between *sensible* knowledge, which, being only of shadows of things, he identified with *Ignorance*, and *abstract* or philosophical knowledge, which he identified with *knowledge*, he recognised an intermediate sphere—that of *Opinion*. Knowledge, strictly so called, is knowledge of the one in the many, of the Idea; sensible knowledge is knowledge only of the many; opinion or mathematical knowledge is knowledge which still leans upon the manifold of sense, and uses it as “hypothesis”

in its ascent into the ideal world. "They (the geometricians) summon to their aid visible forms, and discourse about them, though their thoughts are busy, not with these forms, but with their originals; and though they discourse, not with a view to the particular square and diameter which they draw, but with a view to the absolute square and the absolute diameter, and so on. For while they employ, by way of images, those figures and diagrams aforesaid, they are really endeavouring to behold those abstractions which are only to be seen with the eye of thought" (*Republic*, bk. vi. p. 510).

As Knowledge is of Being, and Ignorance of Non-being, Opinion is of "the interspace between Being and Not-Being."

Thus *Opinion* is the lower stage of "intellectual knowledge; its source is understanding (*διάνοια*), not reason (*νοῦς*).

OPPORTUNITY.—Occasion favourable for action, both in respect of time and of the conditions requisite.

OPPOSITION (in *Logic*).—"Two propositions are said to be *opposed* to each other, when, having the same subject and predicate, they differ in *quantity*, or *quality*, or *both*. It is evident that, with any given subject and predicate, you may state four distinct propositions, viz., A, E, I, and O; any two of which are said to be *opposed*; hence there are four different kinds of *opposition*, viz., 1st, the two universals (A and E), are called *contraries* to each other; 2nd, the two particular (I and O), *subcontraries*; 3rd, A and I, or E and O, *subalterns*; 4th, A and O, or E and I, *contradictories*" (Whately, *Logic*, bk. ii. ch. ii. sec. 3).

The *opposition* of propositions may be thus exhibited:—

All A is B	}	Contraries—may both be false, but cannot both be true.
No A is B.		
Some A is B.	}	Subcontraries—may both be true, but cannot both be false.
Some A is not B.		
All A is B.	}	Contradictories.
Some A is not B.		
No A is B	}	Contradictories.
Some A is B.		
All A is B.	}	and { No A is B. Some A is not B. }
Some A is B.		

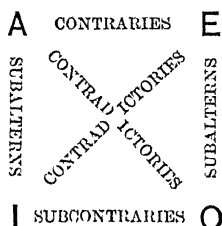
} One must be true and the other false.

} Respectively subalternate.

"Of two subalternate propositions the truth of the universal

proves the truth of the particular, and the falsity of the particular proves the falsity of the universal, but not *vice versa*" (Mill, *Logic*, bk. ii. ch. i.).

These oppositions are generally exhibited in the following figure :—



OPTIMISM (*optimum*) the doctrine that the universe, being the work of an infinitely perfect Being, is the best that could be created.

This doctrine under various forms appeared in all the great philosophical schools of antiquity. During the Middle Ages it was advocated by St Anselm and St Thomas. In times comparatively modern, it was embraced by Descartes and Malebranche, and has been developed in its highest form by Leibnitz. According to him, God, being infinitely perfect, could neither will nor produce evil. And as a less good compared with a greater is evil, the creation of God must not only be good, but the best that could possibly be. Before creation, all beings and all possible conditions of things were present to the Divine Mind in idea, and composed an infinite number of worlds, from among which infinite wisdom chose the best. Creation was the giving existence to the most perfect state of things which had been ideally contemplated by the Divine Mind.

The *optimism* of Leibnitz has been misunderstood and misrepresented by Voltaire and others. The doctrine of Leibnitz is not that the present state of things is the best possible in reference to individuals, nor to classes of beings, nor even to this world as a whole, but in reference to all worlds, or to the universe as a whole—and not even to the universe in its present state, but in reference to that indefinite progress of

which it may contain the germs (Leibnitz, *Essais de Theodicée*: Malebranche, *Entretiens Metaphysiques*).

ORDER,—(1) intelligent arrangement of objects, or of means to accomplish an end, or of the parts for the good of the whole. *Unam post aliam*. (2) In the widest sense, the system of things existing in the universe.

The primitive belief that there is *order* in nature is the ground of all experience, leading us to anticipate that the same causes, operating in the same circumstances, will produce the same effects. This may be resolved into a higher belief in the wisdom of an infinitely perfect being, who orders all things.

Order in its higher sense has been regarded as affording an accurate representation of the nature of rectitude. Every being has an end to answer. While other beings tend only blindly towards their end, man knows the end of his being, indicating the place he holds in the scheme of the universe, and he can freely and intelligently endeavour to realise that universal *order* of which he is an element or constituent. In doing so he does what is right.

In like manner science, in all its discoveries, tends to the discovery of universal *order*. And art, in its highest attainments, is only realising the truth of nature; so that the true, the beautiful, and the good, ultimately resolve themselves into the idea of *order*.

ORGAN.—An *organ* is a part of an animal or vegetable organism fitted to perform a particular action, the performance of which is called its function.

An organ of special sense involves a distinctive terminal arrangement of the peripheral extremity of the appropriated nerve fibre, which connects with a special bulb laid underneath the cerebrum.

ORGANISM.—The structure of vital existence. "An organised product of nature is that in which all the parts are mutually ends and means" (Kant).

A distinction is drawn between Vegetative and Animal Life, in accordance with which "Organic Life" is sometimes applied to the lower and more general form. "The body of man, or

of any one of the higher animals, may be regarded as made up of two portions which are essentially distinct, though intimately blended, as well in their structure as in their actions, viz., (1) the apparatus of animal life; and (2) the apparatus of vegetative or organic life" (Carpenter's *Mental Physiology*, p. 29).

Protoplasm is the name which has been given to "the formal basis of all life," the substance out of which organised existence is built up (Huxley's *Physical Basis of Life*; *Lay Sermons*, p. 132; Hutchison Stirling's *As Regards Protoplasm*).

"Organic sensation" is the general name for that form of sensibility which is common to all the sensory organs in the animal structure. "The organic sensations and their cerebral centres, probably the occipital lobes, would seem to be the foundation or universal background of the pleasurable or painful emotions in general" (Ferrier's *Functions of the Brain*, ch. xi. p. 261).—*V. LIFE*.

ORGANON or **ORGANUM** (*ὄργανον*, an instrument), is the name often applied to a collection of Aristotle's treatises on logic; because, by the Peripatetics, logic was regarded as the instrument of science rather than as itself a science or part of science. In the 6th century, Ammonius and Simplicius arranged the works of Aristotle in classes, one of which they called *logical* or *organical*. But it was not till the 15th century that the name *Organum* came into common use. Bacon gave the name of *Novum Organum* to the second part of his *Instauratio Magna*. And the German philosopher, Lambert, in 1763, published a logical work under the title *Das Neue Organon*.

The *Organon* of Aristotle consists of the following treatises.—The *Categories*, the *De Interpretatione*, the *Analytics*, *Prior* and *Posterior*, the *Topics*, and the *Sophistical Refutations*.

"The *Organon* of Aristotle, and the *Organum* of Bacon stand in relation, but the relation of contrariety; the one considers the laws under which the subject thinks, the other the laws under which the object is to be known. To compare them together is therefore, in reality, to compare together quantities of different species. Each proposes a different end;

both, in different ways, are useful ; and both ought to be assiduously studied " (Hamilton, *Reid's Works*, p. 711, note 2).

ORIGIN (*origo*), beginning ; (1) that which is first in the order of *time*, (2) that which is first in the order of *thought*. Cf. Kant, introd. to *Critique*, sec. i.—"That all our knowledge begins with experience there can be no doubt But, though all our knowledge begins with experience, it by no means follows that all *arises out of* experience."

ORIGIN OF SPECIES.—*V.* SPECIES, EVOLUTION.

ORIGNATION.—The action of power, giving rise to new existence—(1) as in creation ; (2) as in volition. The term is much used in discussion concerning liberty and necessity. Does man *originate* his own actions ?

"To deny all *originating* power of the will must be to place the primordial and necessary causes of all things in the Divine nature. . . . Whether, as a matter of fact, an *originating* power reside *in man*, may be matter of inquiry ; but to maintain it to be an impossibility, is to deny the possibility of creation" (Thomson, *Christian Theism*). "Will, they (Liberarians) hold to be a free cause, a cause which is not an effect, in other words, they attribute to will the power of absolute *origination*" (Hamilton, *Discussions*, p. 623 ; see Cairns, *On Moral Freedom*).

OSTENSIVE (*ostendo*, to show).—*Ostensive* proof. A proof is *direct* or *ostensive* when it evinces the truth of thesis through positive principles ; it is *indirect* or *apagogical* when it evinces the truth of a thesis through the falsehood of its opposite.

OUGHTNESS.—The characteristic of an action required under a categorical imperative.—*V.* DUTY, OBLIGATION.

OUTNESS.—Externality. "The word *outness*, which has been of late revived by some of Kant's admirers in this country, was long ago used by Berkeley in his *Principles of Human Knowledge* (sec. 43) ; and at an earlier period of his life, *Essay towards a New Theory of Vision*, sec. 46" (Stewart, *Philosophical Essays*, pt. i. essay ii. ch. ii.).—*V.* EXTERNALITY, DISTANCE.

PAIN.—Suffering ; (1) the disturbed or distressed experience consequent on physical injury ; (2) sense of wrong under moral injury.—*V.* PESSIMISM.

PALÆTIOLOGY.—"While *Palæontology* describes the beings which have lived in former ages, without investigating their causes, and *Ætiology* treats of causes without distinguishing historical from mechanical causation, *Palætiology* is a combination of the two sciences, exploring, by means of the second, the phenomena presented by the first. All these sciences are connected by this bond—that they all endeavour to ascend to a past state, by considering what is the present state of things, and what are the causes of the change" (Whewell, *History of Scientific Ideas*). The term is not much used.

PANTHEISM (παῦς, all; τὸ πᾶν, θεός).—*Pantheism*, strictly speaking, is the doctrine of the necessary and eternal co-existence of the finite and the infinite; of the absolute consubstantiality of God and nature, considered as two different but inseparable aspects of universal existence. It may take either of two forms. The higher is the absorption of all things in God (Acomism); the lower, the absorption of God in all things, which is practically Atheism. In both forms it sacrifices the notions of Personality, Freedom, and Moral Responsibility.

The oldest form of Pantheism is that which appears in Brahminism. In Greece, the Eleatic school, of which the founder was Xenophanes and the chief philosopher Parmenides, was essentially Pantheistic, maintaining the unity and identity of Being, and denying the existence of the finite and changing. Heraclitus recoiled to the opposite extreme, and sacrificed all permanence and identity to the universal flux of Becoming. The Stoics were Pantheistic in their metaphysics. Within the Christian era, Pantheism appears in Gnosticism and Alexandrian Neo-Platonism, in the speculations of John Scotus Erigena, and of Giordano Bruno, but most conspicuously and consistently in the system of Spinoza. In more recent times there has arisen the *Ideal* Pantheism of the Transcendental school, of Fichte, Schelling, and Hegel.

See Suisset's *Modern Pantheism*; Pollock's *Spinoza*; Martineau's *Study of Spinoza*; relative portions of Histories of Philosophy, Ueberweg, Schwogler, and Zeller.

PARADOX (παρά δόξα, beyond, or contrary to appear-

ance).—An utterance wearing the semblance of incongruity, yet capable of being interpreted in such a manner as to gain assent. *E.g.*, Butler's paradox :—Even from self-love we should endeavour to overcome all inordinate regard and consideration of ourselves ; or the paradox of Hedonism .—Happiness is the end ; but if we aim directly at happiness, we miss it (*cf.* Mill's *Utilitarianism*, 23).

PARALOGISM (παράλογισμός, from παραλογίζομαι, to reason wrongly), is a formal fallacy or pseudo-syllogism, in which the conclusion does not follow from the premises. It is distinguished from the *Sophism* which is a fallacy *intended* to deceive.

Paralogism of Pure Reason.—"The logical paralogism consists in the falsity of an argument in respect of its form, be the content what it may. But a transcendental paralogism has a transcendental foundation, and concludes falsely, while the form is correct and unexceptionable. In this manner the paralogism has its foundation in the nature of human reason, and is the parent of an unavoidable, though not insoluble, mental illusion" (Kant, *Critique of Pure Reason*, p. 237, Meiklejohn). It is a "*sophism*, not of man, but of pure reason herself, from which the wisest cannot free himself." Kant limits the application of the term *Paralogism* to that illusion which is at the root of *Rational Psychology*, viz., the inference, "from the transcendental conception of the subject which contains no manifold," to "the absolute unity of the subject itself."

PARCIMONY (Law of) (*parcimonia*, sparingness).—*Entia non sunt multiplicanda præter necessitatem. Frustra fit per plura quod fieri potest per pauciora.* "That substances are not to be multiplied without necessity ;" in other words, "that a plurality of principles are not to be assumed when the phenomena can possibly be explained by one." This *regulative* principle may be called the law or maxim of *parcimony* (Hamilton, *Reid's Works*, note A, p. 751).

PART.—*V.* WHOLE.

PARTICULAR.—*V.* PROPOSITION.

PARTITION.—Physical division, as opposed to logical, *e.g.*, division of the body into its various parts.

PASSION (*passio*, πάσχω, to suffer)—(1) highly excited and agitating feeling, violently urging towards a single course of action; (2) intense emotion; (3) suffering.

“**The Passions**,” is a phrase applied to those states of the sensibility which are turbulent, and weaken our power of self-command. Passion is opposed to reason.

Plato arranged the *passions* in two classes,—the concupiscent and irascible, ἐπιθυμία and θυμός, the former springing from the body and perishing with it, the latter connected with the rational and immortal part of our nature, and stimulating to the pursuit of good and the avoiding of excess and evil.

Aristotle included all our active principles under one general designation of *Orectic*, and distinguished them into the appetite irascible, the appetite concupiscent, which had their origin in the body, and the appetite rational (βούλησις), which is the will, under the guidance of reason.

In modern philosophy there are two great treatises on the Passions, that of Spinoza (*Ethics*, pts. iii.-iv.), and that of Hume (*Treatise on Human Nature*, bk. ii., “Of the Passions”).

PASSIVE, inactive,—as correlative with “active”; that which is acted upon, as related to that which acts. “Passive experience,” that which is the result of physical or mental susceptibility.

PERCEIVE, PERCEPTION (*capio*, to take; *per*, by means of), simple apprehension, by means of the organs of sense; (1) commonly applied to external perception, the recognition of an external object by means of the senses. In this apparently simple act there are several essential conditions, (a) sensibility belonging to organism, as acted upon from without, commonly by contact, (b) sensation, an impression present in consciousness; (c) on the inner or higher side, judgment, or action of a comparing power, dealing with present fact, and with previous knowledge remembered; (2) internal perception,—simple apprehension of any modification present in consciousness, in itself a condition of consciousness. Hamilton employs *perception* to denote the faculty, and *percept* the individual act of perceiving.

Descartes (*Prin. Phil.*, pars. i. sec. 32), says:—“All the

modes of thinking which we experience may be reduced to two classes, viz., *perception*, or the operation of the understanding, and *volition*, or the operation of the will. Thus, to perceive by the senses (*sentire*), to imagine, and to create things purely intelligible, are only different modes of perceiving; to desire, to be averse from, to affirm, to deny, to doubt, are different modes of willing.

So Locke (*Essay*, bk. li. ch. vi.) says:—"The two principal actions of the mind are these two: *perception* or *thinking*, and *volition* or *willing*."

Reid thought that "*perception* is most properly applied to the evidence which we have of external objects by our senses." He says (*Intellectual Powers*, essay i. ch. i.):—"The *perception* of external objects by our senses, is an operation of the mind of a peculiar nature, and ought to have a name appropriated to it. It has so in all languages. And, in English, I know no word more proper to express this act of the mind than *perception*. Seeing, hearing, smelling, tasting, and touching or feeling, are words that express the operations proper to each sense; *perceiving* expresses that which is common to them all."

The restriction thus imposed upon the word by Reid, is to be found also in the philosophy of Kant, who distinguishes between *Perception* or *Intuition*, by which objects are *given*, and *Conception*, by which they are *thought*. The former he refers to *Sensibility*, the latter to *Understanding*. The science of the principles of Sensibility he calls *Transcendental Aesthetic*, that of the principles of Understanding *Transcendental Analytic*.

In note D* to *Reid's Works*, p. 876, Hamilton notices the following meanings of *perception*:—(1) "*Perceptio*, in its primary philosophical signification, as in the mouths of Cicero and Quintilian, is vaguely equivalent to comprehension, notion, cognition in general; (2) an apprehension, a becoming aware of a consciousness. *Perception*, the Cartesians really identified with *idea*, and allowed them only a logical distinction; the same representative act being called *idea*, inasmuch as we regard it as a representation; and *perception*, inasmuch as we regard it as a consciousness of such representation; (3) *perception* is limited to the apprehension of sense alone. This

limitation was first formally imposed by Reid, and thereafter by Kant. (Kant also distinguishes between *sensation*, or the *matter* of perception, which must be *given* to the mind, and its *form* which is imposed upon this matter by the mind itself); (4) a still more restricted meaning, through the authority of Reid, is *perception* (proper), in contrast to *sensation* (proper). He defines sensitive *perception*, or *perception* simply, as that act of consciousness whereby we apprehend in our body, (a) certain special affections, whereof, as an *animated* organism, it is contingently susceptible, and (b) those *general relations of extension*, under which, as a *material* organism, it necessarily exists. Of these *perceptions*, the former, which is thus conversant about a *subject-object*, is *sensation proper*, the latter, which is thus conversant about an *object-object*, is *perception proper*."

According to Hamilton, following Reid, Perception and Sensation, or the Element of Knowledge and that of Feeling, "though always co-existent, are always in the *inverse ratio* of each other" (*Metaph.*, lect. xxiv.).

PERCEPTIONS (Obscure), or latent modifications of mind.

Every moment light is reflected from innumerable objects, while smells and sounds are affecting us. But we pay no heed to them. These are what Leibnitz (*Nouv. Essais*) calls *obscure perceptions*.

The sum of these *obscure perceptions* and latent feelings, which never come clearly into the field of consciousness, is what makes us at any time well or ill at ease. "The mind," he says, "is like an ocean in which there is an infinite multitude of very obscure perceptions, and its distinct ideas are like islands which emerge from the ocean."

"*Confused or insensible perceptions* are without consciousness or memory. . . . There are a thousand marks which make us judge that there is, every moment, in us an infinity of *perceptions*; but the habit of perceiving them, by depriving them of the attraction of novelty, turns away our attention, and prevents them from fixing themselves in our memory. How could we form a *clear perception* without the *insensible*

perceptions which constitute it? To hear the noise of the sea, for example, it is necessary that we hear the parts which compose the whole, that is, the noise of each wave, though each of these little noises does not make itself known but in the confused assemblage of all the others together with it. . . . Leibnitz attaches the greatest questions of philosophy to these *insensible perceptions*, in so far as they imply the *law of continuity*. . . . They often determine us without our knowing it, and they deceive the vulgar by the appearance of an indifference of equilibrium. They supply the action of substances upon one another, and explain the *pre-established harmony* of soul and body. It is in virtue of these insensible variations that no two things can ever be perfectly alike (the principle of *indiscernibles*), and that their difference is always more than numerical, which destroys the doctrine of the tablets of the mind being empty, of a soul without thought, a substance without action, a vacuum in space, and the atoms of matter" (Tiberghien, *Essai des Connaiss. Hum.*).

"Obscure ideas, or, more properly, sensations with dormant consciousness, are exceedingly numerous. . . . It is they which are active throughout the whole process of the formation of thought; for this goes on, though we are unconscious of it, and gives us only the perfect results, viz., ideas, notions. It is they which in the habitual voluntary motions, for instance, in playing on the piano, dancing, &c., set the proper muscles in motion through the appropriate motor nerves, though the mind does not direct to them the attention of consciousness. It is they which in sleep and in disorders of mind act a most important part. It is their totality which forms what plays so prominent a part in life under the name of *disposition* or *temper*" (Feuchtersleben, *Med. Psychology*, 1847, p. 110).

Great attention is given to this subject in recent developments of Psychology, e.g., in *Psycho-physics* (q.v.) Lewes proposes to apply the word *subconscious* to perceptions which do not appear above the "floor of consciousness."—V. LATENT.

PERFECTION (*perficio*; *perfectum*, completeness),—(1) *relative*, (2) *absolute*, self-sufficiency. "By *perfection* is meant the full and harmonious development of all our faculties,

corporeal and mental, intellectual and moral. . . . Human perfection and human happiness coincide, and thus constitute, in reality, but a single end" (Hamilton, *Metaph.*, i. 20). *Perfection* is thus *relative* or *absolute*.

The *perfections* of God are the attributes belonging to the absolute Being.

PERIPATETIC (*περιπατέω*, to walk about), is applied to Aristotle and his followers, who seem to have carried on their philosophical discussions while walking about in the halls and promenades of the Lyceum. Diogenes Laertius says, on the authority of Hermippus:—"He chose a promenade in the Lyceum, in which he walked up and down with his disciples discussing subjects of philosophy, till the time for anointing themselves came, hence he was called (*Περιπατητικόν*) Peripatetic. But others say, it was on account of walking with Alexander when he was recovering from an illness" (Diog. Laert., bk. v., Meibomius, i. 269). The disciples of Aristotle were subsequently known as the Peripatetics.

PERMANENCE.—This is the first of Kant's *Analogies of Experience* (*q.v.*). He calls it the "Principle of the Permanence of Substance." It is as follows:—"In all changes of phenomena, substance is permanent, and the quantum thereof in nature is neither increased nor diminished." Permanence, that is, is the time-form of the category of substance (see *Critique of Pure Reason*, Meiklejohn's transl., p. 136).

PERMUTATION.—This is a term sometimes applied to a species of Immediate Inference, viz., the predicating of the original subject, the contradictory of the original predicate, and changing the quality of the proposition, *e.g.*, to infer from *All A is B* that *No A is not B*. The process is otherwise designated *Obversion* and *Equipollence*.

PERSON, applied specially to a moral being, as contrasted with *animal* and *thing*,—(1) a being capable of exercising understanding and will—a self-determining intelligence; (2) applied to the Absolute Being, as self-determining intelligence.

Persona, in Latin, meant the mask worn by an actor on the stage, within which the sounds of the voice were concentrated, and through which (*personuit*) he made himself heard by the

immense audience. From being applied to the mask it came next to be applied to the actor, then to the character acted, then to any assumed character, and lastly, to any one having any character or station. "Person," says Locke (*Essay*, bk. ii. ch. xxvii.), "stands for a thinking intelligent being, that has reason and reflection, and can consider itself as itself, the same thinking thing in different times and places." "He to whom actions can be imputed is called person" (Kant, *Metaphysics of Ethics*, Semple, 3rd ed., p. 172). "Man and every reasonable agent exists as an end in himself" (*ib.*, p. 41).

The full significance of personality appears in moral life. Hegel's formula for the ethical imperative is, "Be a person, and respect others as persons" (*Grundlinien der Philosophie des Rechts*, sec. 36, p. 42; *Werke*, viii. 75).

PESSIMISM.—The theory of existence which represents that evil prevails in the world, and that the world is the worst possible. This theory in its recent forms is a reaction against the scheme of Hegel, which identifies the rational and the existing, making dialectic movement the key to all being. Schopenhauer's leading work is *The World as Will and Representation*, in which he uses "Will" as equivalent to impulse in all its forms, even including the forces of nature. He holds to a progression in the universe from lower to higher forms of impulse, but considers that in the process pain and evil are the inevitable attendants, and therefore that the world is the worst possible. Hartmann, in his *Philosophy of the Unconscious*, takes a similar view, maintaining that progression is at the cost of suffering to such a degree that it were better the world did not exist, and yet he grants that development implies that the world is the best possible under the conditions. Hartmann's *Pessimism* has thus involved in it a modified *Optimism* (see translations of both works, Sully's *Pessimism*; Ueberweg's *History*, ii. 255 and 236). Pessimism admits of no positive ethics, but makes ethical thought negative, tending to asceticism, in order to escape the evil, and anticipating unconsciousness as the end of all.

PETITIO PRINCIPII, begging the question. — *V.*
FALLACY.

PHENOMENALISM, the theory of knowledge which maintains that all knowledge is only of the phenomenal and transitory, denying on the one hand knowledge of objects as existing independently of our recognition of phenomena, and, on the other, knowledge of necessary and universal truth.—*V.* PHENOMENON, EMPIRICISM.

PHENOMENOLOGY.—A science of things as they are recognised by our senses, and of facts as they occur in our experience, as opposed to a science of things as existing in themselves, or in their absolute nature.

PHENOMENON (*φαινόμενον* from *φαίνομαι*, to appear; German, *Erscheinung*), that which is recognised as appearing or occurring, as contrasted with illusory appearance, and generally applied to some sensible appearance. In mental philosophy it includes the changing states of mind. We thus have in contrast “phenomena of nature,” and “phenomena of mind.”

“Among the various *phenomena* which the human mind presents to our view, there is none more calculated to excite our curiosity and our wonder, than the communication which is carried on between the sentient, thinking, and active principle within us, and the material objects with which we are surrounded” (Stewart, *Elements*, ch. i. sec. 1).

In the philosophy of Kant, *phenomenon* means the object of knowledge in opposition to *noumenon*, or the thing as it is in itself. “The undetermined object of an empirical intuition is called *phenomenon*. That which in the phenomenon corresponds to the sensation, I term its *matter*; but that which secures that the content of the phenomenon can be arranged under certain relations, I call its *form*” (Kant’s *Critique of Pure Reason*, Meiklejohn, p. 21).

According to Kant, the facts of consciousness, in their subjective character, are produced partly from the nature of the things of which it is conscious; and hence, in their objective character, they are *phenomena*, or objects as they appear in relation to us, not things in themselves, *noumena*, or realities in their absolute nature, as they may be out of relation to the mind. The subjective elements which the mind itself contributes to the consciousness of every object are to be found, as

regards intuition, in the forms of space and time; and, as regards thought, in the categories, unity, plurality, and the rest. To perceive a thing in itself would be to perceive it neither in space nor in time; for these are furnished by the constitution of our perceptive faculties, and constitute an element of the *phenomenal* object of intuition only. To think of a thing in itself would be to think of it neither as one nor as many, nor under any other category; for these, again, depend upon the constitution of our understanding, and constitute an element of the *phenomenal* object of thought. The *phenomenal* is the product of the inherent laws of our own mental constitution, and, as such, is the sum and limit of all the knowledge to which we can attain" (Mansel, *Lecture on Philosophy of Kant*). Kant accordingly limits our knowledge (speculatively) to the sphere of the phenomenon: the noumenon being realised only in moral life. Hegel maintains that in knowing the phenomenon we know the noumenon also, essence and appearance being really one, and only abstractly distinguishable. Spencer, adopting Kant's results in their purely negative form, denies the possibility of knowledge of absolute reality. "The reality existing behind all appearances is, and must ever be, unknown" (*First Principles*, pt. i. ch. iv.).—V. AGNOSTICISM, POSITIVISM, NOUMENON, APPEARANCE.

PHILANTHROPY (φιλανθρωπία, from φιλανθρωπεύω, to be a friend to mankind),—the love of mankind,—the esteem due to man as a moral being, possessing the powers, possibilities, and responsibilities belonging to every such being. It is thus a love of our fellow-men required by moral law.

PHILOSOPHY (φιλοσοφία, φιλία, σοφία, the love of wisdom).—The origin of the word is traced to Pythagoras, who did not call himself σοφός, like the wise men of Greece, but declared himself a lover of wisdom, φίλος σοφίας. Philosophy is the rationalised view of things existing or occurring; "the thinking view of things;" "the attainment of truth by the way of reason." Technically, *Philosophy* is the ultimate rational explanation of things, obtained by discovery of the reason of their existence, or by showing *why* they exist. *Science* is a rational explanation of external phenomena, in so

far as it is a discovery of invariable sequence in their occurrence, warranting us to postulate a "law of nature." Its object is to show *how* the phenomena arise. As investigating the *presuppositions* of Science, Philosophy has been called "First Philosophy." Philosophy contemplates the whole of existence, while science deals with selected parts. It was defined by Cicero (*De Officiis*, lib. ii. cap. ii.), *Rerum divinarum et humanarum, causarumque quibus hæ res continentur, scientia*.

In Philosophy, says Bacon (*Advancement of Learning*, bk. ii.), "the contemplations of man do either penetrate unto God, or are circumferred to nature, or are reflected or reverted upon himself. Out of which several inquiries there do arise three knowledges, *Divine philosophy, natural philosophy, and human philosophy*, or humanity." "Philosophy began in wonder," Διὰ γὰρ τὸ θαυμάζειν οἱ ἄνθρωποι, καὶ νῦν καὶ τὸ πρῶτον ἤρξαντο φιλοσοφεῖν (Aristotle, *Metaph.*, i. 2).

The objects of Philosophy are God, nature, and man. With Socrates, it was an effort to interpret our fundamental conceptions; with Plato, to interpret the sensible by the supersensible. Under the hand of Aristotle, its parts were separated and classified as theoretical, practical, and poetic or artistic. The Stoic division was Logic, Physics, and Ethics.

In modern usage, Philosophy is the general term to include Mental Philosophy in all its divisions; a still wider application, which placed mental philosophy in contrast with natural philosophy, having been generally abandoned, the name "Physics" being now applied to the department formerly named natural philosophy. Restricted to the mental sphere, it includes Logic, Psychology, Metaphysics, and Ethics, with its Psychology and Metaphysics, its Sociology and Politics. Contemplated as a unity including all these, it is a Theory of Knowledge (Epistemology), and concerned with existence regarded as a whole, as in the Kantian scheme. In the Hegelian scheme, involving the identification of knowledge and being,—the approximation of Logic and metaphysics,—Philosophy is regarded as a Logic, or Dialectic of existence.—
V. ETHICS, LOGIC, METAPHYSICS, ONTOLOGY, PSYCHOLOGY.

PHRENOLOGY (φρήν, mind; λόγος, discourse), appro-

priated by Craniologists to designate the hypothesis that the convolutions of the brain, involving corresponding elevations of the skull, are the index of our different faculties and susceptibilities. According to Gall, "its end is to determine the functions of the brain in general, and of its different parts in particular, and to prove that you may recognise different dispositions and inclinations by the protuberances and depressions to be found on the cranium" (see writings of Gall, Spurzheim, and Combe). Craniology is thrown into a quite subordinate place, in view of recent investigations as to brain structure, relations of the lobes and convolutions of the cerebrum, and localisation of sensory and motor centres. These investigations discredit Phrenology (*cf.* Hamilton, *Metaph.*, vol. 1. app. ii.).

PHYSICAL (φύσις, nature).—(1) In etymological sense, *natural*. This usage, now obsolete, occurs in Locke's *Essay*, bk. i. ch. i. sec. 2, introd.:—"I shall not at present meddle with the *physical* consideration of the mind, or trouble myself to examine wherein its *essence* consists; *i.e.*, the consideration of the essential nature of mind. (2) In modern usage, opposed to *Psychical* or *Mental*, and equivalent to *Material* (*q.v.*).—**V. MATTER, BODY.**

PHYSICS, the science concerned with the laws of *unorganised* matter.

PHYSIOGNOMY (φύσις, nature; γνῶμων, an index) is defined by Lavater to be the "art of discovering the *interior* of man from his *exterior*;" commonly, the interpretation of disposition and character by the features of the face. In the Middle Ages, *physiognomy* had a more extensive meaning, being applied to the knowledge of the *internal* properties of any corporeal existence from *external* appearances.

PHYSIOLOGY, the science of the structure, vital conditions, and organic functions of living beings.

It is the province of *Physiology*, in dealing with the brain and the whole nervous system of man, to trace the external conditions of our feeling and knowledge, proceeding from without as far as possible towards the inner circle of experience. It is the province of *Psychology* to trace the internal conditions of our knowledge and feeling, advancing as far as possible

towards the outer world. On the inability of *Physiology* to account for facts of Mind, see Green (Gen. Introd. to *Hume's Works*, p. 164).

PHYSIOLOGICAL PSYCHOLOGY, a theory of mind founded on investigations as to the functions of nerve and brain. Ribot in his *Psychologie Allemande* (introd. viii.) says:—"The new psychology differs from the old in spirit; it is not metaphysical; in its procedure it studies only phenomena, borrowing as much as possible from biological sciences."

On the relation of *Physiology* to *Psychology*, see Carpenter's *Mental Physiology*; Maudsley's *Physiology and Pathology of Mind*; Ferrier's *Functions of the Brain*; Calderwood's *Relations of Mind and Brain*. In German literature, Wundt, *Physiologische Psychologie*; Waitz, *Lehrbuch der Psychologie*; Volkman, *Lehrbuch der Psychologie*.

PICTURESQUE,—(1) whatsoever in nature stirs æsthetic feeling; (2) "what is done in the style and with the spirit of a painter, and it was thus, if I am not much mistaken, that the word was commonly employed when it was first adopted in England. . . . But it has been frequently employed to denote those combinations or groups or attitudes of objects that are fitted for the purposes of the painter" (Stewart, *Philosophical Essays*, pt. i. ch. v.).

PLAN.—Lotze contrasts *Plan* with *Law* as the guiding ideas of two opposite philosophical methods. "It was emphatically not as instances of a universal rule, but as parts of a whole, that men first conceived things: as related to each other not primarily by permanent laws, but by the unchangeable purport of a plan. . . . In this connection originated the dazzling forms of the idealistic constructions of the universe. Starting from a supreme idea, into the depths of which they claimed to have penetrated by immediate intuition, the authors of these schemes thought to deduce the manifold variety of phenomena in that order in which the phenomena were to contribute to the realisation of the supposed plan. It was not the discovery of laws that was their object, but the establishment of the several ends which the development of things had gradually to attain, and of which each determined all habits

of existence and behaviour within the limits of that section of the universe which it governed" (*Metaphysics*, p. 14, Bosanquet). According to Lotze himself, *Metaphysics* must start with the investigation of *Law*. "Metaphysic has merely to show what the universal conditions are which must be satisfied by anything of which we can say, without contradicting ourselves, that it is or that it happens. The question remains open, whether these laws, which we hope to master, form the ultimate object which our knowledge can reach, or whether we may succeed in deducing them from a highest thought, as conditions of its realisation which this thought imposes upon itself" (*ib.*, pp. 15-16).—[J. S.]

PLEASURE.—*V.* HAPPINESS THEORY, UTILITARIANISM.

PLENUM.—*V.* ATOMISM.

PNEUMATOLOGY (πνεῦμα, spirit; λόγος, discourse).—The branch of philosophy which treats of the nature and operations of the mind. Synonymous with *Psychology* (*q.v.*). The term is now obsolete.

POLITICAL PHILOSOPHY.—Systematic exposition of the underlying principles concerned with social, national, and international life, as the liberties, industries, and possessions of men are involved in the government of communities. The aim of political philosophy is to recognise the ethical laws bearing on the relations of persons in organised communities; and to trace the application of these through all the intricacies of organisation and government of the state. At its basis lies the principle of Justice, that is, the equality of men as men, placed under the common responsibilities of moral life, and consequently having equal private rights of liberty and labour, production and possession. On its practical side it treats of the application of fundamental principles to the constantly changing conditions of life, enterprise, and competition, induced by advancing civilisation. Political Economy, subordinate to Political Philosophy, deals with the economic laws affecting production and distribution of wealth.

On the different aspects of Political Philosophy see theoretic division of works on Political Economy—M'Culloch, J. S. Mill, Rogers, Fawcett, Turgot, Quèsnay, Bastiat's *Harmonies of*

Political Economy; Hume's *Political Essays*; Ferguson's *Civil Society*; Vinet on Social Philosophy in *Outlines of Philosophy and Literature*; Lorimer's *Institutes of Law*; Pollock's *Jurisprudence and Ethics*; Stephen's *Liberty, Equality, and Fraternity*; Buckle's *History of Civilisation*; Spencer's *Sociology*; *The English Citizen Series*, including the State's relation to Law, Government, Education, Trade, &c.

POLYTHEISM (πολύς, many; θεός, god).—"To believe no one supreme designing principle or mind, but rather two, three, or more (though in their nature good), is to be a *polytheist*" (*Shaftesbury*, bk. i. pt. i. sec. 2). See Flint, *Antitheistic Theories*, app. xxxii. p. 533.

PORPHYRY (Tree of).—In the 3rd century Porphyry wrote Εἰσαγωγή, or *Introduction to the Categories of Aristotle*. In this he represented the *five predicables* (q.v.), under the form of a tree with its trunk and branches; hence the name. By the Greek logicians it was called the *ladder* (κλίμαξ) of Porphyry. The Εἰσαγωγή is translated in Bohm's ed. of Aristotle's *Organon*, ii. p. 609.

POSITIVE.—(1) In its more general acceptation, affirmative; (2) more restrictedly, realistic, as dealing with facts only, in contrast with imaginative and rationalised; (3) applied to a command expressing the will of the ruler, as distinguished from moral law, which is essentially right.—V. LAW.

POSITIVISM.—The name given by Comte to his system of philosophy, as professedly based upon facts, with denial of the possibility of any knowledge of causes; a philosophy of uniform sequences.

The peculiar principles advocated by M. Auguste Comte, in his *Cours de Philosophie Positive*, are thus described by G. H. Lewes (*Comte's Philosophy of Sciences*, 1853, sec. 1):—"This is the mission of *positivism*, to generalise science, and to systematise sociality; in other words, it aims at creating a philosophy of the sciences, as a basis for a new social faith. A social doctrine is the *aim of positivism*, a scientific doctrine the *means*.

"The leading conception of M. Comte, named 'the law of the three states,' is that there are but three phases of intellectual evolution—the *theological* (supernatural), the *metaphysical*, and

the *positive*. In the *supernatural* phase, the mind seeks *causes*; unusual phenomena are interpreted as the signs of the pleasure or displeasure of some god. In the *metaphysical* phase, the supernatural agents are set aside for abstract forces inherent in substances. In the *positive* phase, the mind restricts itself to the discovery of the *laws* of phenomena."

Positivism has, however, its system of religion. Its God is Humanity, its worship is *le culte systematique de l'humanité* (see HUMANITY, RELIGION OF). *The Positive Philosophy of Comte*, Martineau, 2 vols.; *Auguste Comte and Positivism*, J. S. Mill; *Social Philosophy of Comte*, E. Caird; *Types of Ethical Theory*, Martineau, i. 401 ff; articles in *Contemporary Review*, F. Harrison; *Positivism and Christianity*, M'Cosh; *Antitheistic Theories*, lect. v., Flint; *Handbook of Moral Philosophy*, Calderwood, p. 59.

POSSIBLE (*posse*, to be able).—That which according to known conditions may or can be. A thing is said to be *possible* when, though not actually in existence, all the conditions necessary for realising its existence are given. A thing is *possible* when there is no contradiction between the conception of it and the realisation of it; and a thing is *impossible* when the representation implies contradiction.

"*Possible* relates sometimes to *contingency*, sometimes to power or liberty" (Whately, *Logic*, app. i.), the former referring to the action of natural law, the latter to personal choice.—V. MODALITY.

POSTULATE (*αἴτημα*, *postulatum*, that which is assumed in order to prove something else).—A basis from which to reason; to be distinguished (1) from *Axiom*, or self-evident truth, the postulate being a position given or granted; (2) from *Hypothesis*, which is only a tentative suggestion.

Kant's Postulates of Empirical Thought are these:—(1) that which agrees with the formal conditions of experience is possible; (2) that which coheres with the material conditions of experience (sensation) is *real*, (3) that whose coherence with the real is determined according to universal conditions of experience is *necessary* (*Critique of Pure Reason*, Meiklejohn, p. 161; Stirling's

Kant's Postulates of Pure Practical Reason "all proceed from the principle of morality, which is not a postulate but a law," and are suppositions practically necessary,—“these postulates are those of *immortality*, *freedom*, positively considered (as the causality of a being so far as he belongs to the intelligible world) and *the existence of God* (*Kant's Theory of Ethics*, Abbott, p. 231).

POTENTIAL, that which can be accomplished, because of *δύναμις* existing in an agent,—the possible, as opposed to the *actual*,—*δύναμις* as opposed to the *ἐνέργεια*—This antithesis is a fundamental doctrine of the Aristotelian philosophy. According to Aristotle, the universe is a constant process of evolution of the *actual* from the *potential* (Hamilton, *Metaph.*, lect. x., i. 179) — **V. CAPACITY.**

POWER (*posse*, to be able; in Greek, *δύναμις*). (1) In its widest use,—Force, as when we speak of water-power, (2) more properly, that which originates activity, whether mechanical or mental. Our knowledge of power comes from our own personality.

“In the strict sense, *power* and agency are attributes of mind only; and, I think, that mind only can be a *cause* in the strict sense. This *power*, indeed, may be where it is not exerted, and so may be without agency or causation, but there can be no agency or causation without *power* to act and to produce the effect. As far as I can judge, to everything we call a cause we ascribe power to produce the effect. . . . We get the notion of *active power*, as well as of cause and effect, as I think, from what we feel in ourselves. We feel in ourselves a *power* to move our limbs, and to produce certain effects when we choose. Hence we get the notion of *power*, *agency*, and *causation*, in the strict and philosophical sense; and this I take to be our first notion of these three things” (Reid, *Correspondence*, pp. 77, 78).

“Power,” says Locke (*Essay*, bk. ii. ch. xvi. sec. 2), “may be considered as twofold, viz., as able to make, or able to receive, any change: the one may be called active, and the other passive power.” Reid, in reference to this distinction, says (*Active Powers*, essay i. ch. iii.):—“Whereas he distinguishes

power into active and passive, I conceive *passive power* is no *power* at all. He means by it the possibility of being changed. To call this *power* seems to be a misapplication of the word. I do not remember to have met with the phrase *passive power* in any other good author. Mr Locke seems to have been unlucky in inventing it; and it deserves not to be retained in our language." "This paragraph," says Hamilton, in a note upon it (*Reid's Works*, p. 519, note), "is erroneous in almost all its statements." The distinction between *power*, as active and passive, is clearly drawn by Aristotle. But he says that in one point of view they are but one *power*, while in another they are two. This distinction has been generally admitted by subsequent philosophers. Reid, however, only used the word *power* to signify *active power*. How we come by the idea of *power*, he shows in opposition to Hume (*Active Powers*, essay i. ch. ii, iv.).

"Hume says that "the terms of *efficacy*, *agency*, *power*, *force*, *energy*, *necessary connection*, and *productive quality*, are nearly all synonymous" (*Treatise*, pt. iii. sec. 14). "There are no ideas, which occur in metaphysics, more obscure and uncertain, than those of *power*, *force*, *energy*, or *necessary connection*, of which it is every moment necessary for us to treat in all our disquisitions" (*Inquiry*, sec. 7).

According to Hume, we have no proper notion of *power*. It is a mere relation which the mind conceives to exist between one thing going before, and another thing coming after. All that we observe is merely antecedent and consequent. Neither sensation nor reflection furnishes us with any idea of *power* or efficacy in the antecedent to produce the consequent. The views of Dr Brown are somewhat similar. It is when the succession is constant—when the antecedent is uniformly followed by the consequent, that we call the one cause, and the other effect; but we have no ground for believing that there is any other relation between them or any virtue in the one to originate or produce the other, that is, we have no proper idea of *power*.

Our conception of *power* cannot be explained by the philosophy which derives all knowledge from sensation and reflec-

tion. *Power* is not an object of sense. All that we observe is succession. But when we see one thing invariably succeeded by another, we frame the idea of *power*, and conclude that there is an efficacy in the one thing to originate the other, and that the connection between them is uniform. That there is such an idea cannot be denied; its validity can be fully vindicated by reference to personal activity and the laws of thought.

Aristotle, *Metaph.*, lib. viii. cap. 1; Locke, *Essay*, bk. ii. ch. xxi.; Hobbes, *Opera*, i. 120, ed. by Molesworth; *Elements of Philosophy*, pt. ii. ch. ix., x.; Hume, *Treatise on Human Nature*, pt. iii. sec. 14; *Inquiry*, sec. 7; Berkeley's *Principles*, sec. 25, Fraser's *Selections*, 2nd ed., p. 51; Brown's *Cause and Effect*; Mill's *Logic*, bk. iii. ch. v. vol. ii. p. 392; Hamilton's *Metaph.*, lect. x., i. 174.

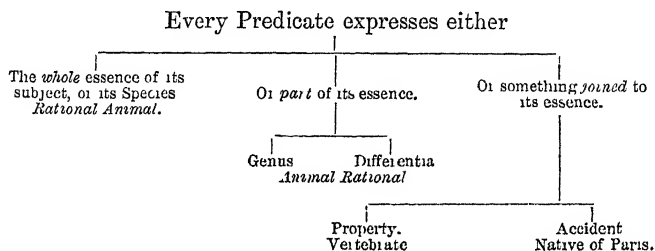
PRACTICAL (German, *praktisch*).—Kant's expression for Reason when regarded as the guide of Will, in contrast with Reason regarded as a purely knowing power. "Reason is bestowed on man as a practical faculty of action, *i.e.*, such a faculty as influences his will and choice" (*Metaph. of Ethics*, Semple, 3rd ed., p. 6).

PREDICATE, PREDICABLE, and PREDICAMENT, are all derived from *predico*, to affirm. A *predicate* is that which is actually affirmed of any one, as wisdom of Peter. A *predicable* is that which may be affirmed of many, as sun may be affirmed of other suns besides that of our system. A *predicament* is a series, order, or arrangement of *predicates* and *predicables* under some summum genus, as substance, or quality.

What is affirmed or denied is called the *predicate*; and that of which it is affirmed or denied is called the *subject*.

Predicables.—"Whatever term can be affirmed of several things, must express either their whole *essence*, which is called the *species*; or a *part* of their essence (*viz.*, either the *material* part, which is called the *genus*, or the *formal* and distinguishing part, which is called *differentia*, or in common discourse, *characteristic*), or something joined to the essence; whether *necessarily* (*i.e.*, to the *whole* species, or in other words, *universally*, to every individual of it), which is called a *property*;

or contingently (*i.e.*, to *some* individuals only of the species), which is an *accident*.



PRE-ESTABLISHED HARMONY.—For doctrine of Leibnitz, as to relations of body and mind, &c., see under **HARMONY**.

PREJUDICE (*præjudico*, to judge before inquiry).—A *prejudice* is a pre-judging; that is, adopting an opinion before its grounds have been fairly or fully considered. The opinion may happen to be true, but it is without proper evidence. “*Prejudices* are unreasonable judgments, formed or held under the influence of some other motive than the love of truth” (Taylor, *Elements of Thought*).

Reid (*Intellectual Powers*, essay vi. ch. viii.) treats of *prejudices* or the causes of error, according to the classification given of them by Bacon under the name of *idols* (*q.v.*). Locke has treated of the causes of error (*Essay*, bk. iv. ch. xx.).

PREMISS (*propositiones præmissæ*, propositions which go before the conclusion, and from which it is inferred).—A regular syllogism consists of two *premisses* and a *conclusion*. The premisses are called respectively the *Major* and *Minor*.—**V. MAJOR**.

PRESCIENCE (*præscio*, foreknowledge).—The *prescience* of God may be inferred from the perfection of His nature; but it is impossible for us to conceive of its exercise. Our obscure and inferential knowledge of what is future is not to be likened to God’s clear and direct beholding of all things.

PRESENTATIVE.—**V. KNOWLEDGE**.

PRIMARY QUALITY (*primus*, first) is opposed to

secondary. Locke defines *Primary Qualities* as "such as are inseparable from the body, in what estate soever it be," and enumerates the following :—Solidity, extension, figure, motion, rest, and number (*Essay*, bk. ii. ch. viii. sec. 9).

According to Locke, the *primary* qualities are objective, *i.e.*, they exist not merely in the percipient mind but also in the object itself; the *secondary* are merely subjective, existing in the mind of the percipient, except in so far as they are resolvable into the primary, of which they are merely modifications.
—V. MATTER, QUALITY.

PRINCIPLE (*principium*, ἀρχή, a beginning).—Origin, (1) in respect of intelligent life—a first truth; (2) in respect of activity—the source of movement.

The word is applied equally to thought and to being; and hence *principles* have been divided into (1) those of being and (2) those of knowledge, or *principia essendi* and *principia cognoscendi*, or, according to the language of German philosophers, *principles real* and *principles formal*.

Aristotle (*Metaph.*, lib. iv. cap. 1) has noticed several meanings of ἀρχή, which is translated *principle*, and has added—“What is common to all first *principles* is that they are the *primary source from which anything is, becomes, or is known*.”

Ancient philosophy was almost exclusively occupied with principles of *being*, investigating the origin and elements of all things, *i.e.*, was properly ontological, while, on the other hand, modern philosophy has been chiefly devoted to principles of *knowledge*, ascertaining the laws and elements of thought, and determining their validity in reference to the knowledge which they give, *i.e.*, prevalingly epistemological.

(1) **Principles of Knowledge** are those original truths by means of which all other truths are known. They correspond with the first truths, primitive beliefs, or principles of common sense, of the Scottish philosophy.

Lord Herbert, *De Veritate*; Buffier, *Treatise of First Truths*; Reid, *Intellectual Powers*, essay vi.; Hamilton, note A, “On the Philosophy of Common Sense,” *Reid's Works*, p. 742.

(2) **Principles of Action** may mean either (*a*) those *express principles* or laws of right conduct which ought to regulate

human action ; or (b) those *motive forces* which prompt human action.

When applied to human action the word *principle* is used to denote that the source of activity is in the agent himself. It may signify the dependence of *causality* or of *inherence*. Hence it has been said that a *principle of action* is twofold—the *principium quod*, and the *principium quo*. Thus, man as an active being is the *principium quod* or efficient cause of an action ; his will is the *principium quo*. But the will itself is stimulated or moved to exert itself ; and in this view may be regarded as the *principium quod*, while that which moves or stimulates it may be regarded as the *principium quo*.

PRIVATION (στέρησις, *privatio*).—The absence of what naturally or usually belongs to an object. Hence terms which express such absence are called *privation terms*, e.g., *Blind*.

According to Aristotle, *privation* or στέρησις belongs to matter (ὑλη) as the *unformed* (ἀόριστον) (see *Physics*, i. 7, 190b, 27). Aristotle's conception of *Matter* is always that of the *unformed* relatively to εἶδος, its *form* ; hence at the first and lowest stage of the process, ὑλη will be that which is absolutely without form. Στέρησις, therefore, according to Aristotle, is that without which the first *matter* could not receive the impression of any *form* ; for it must be clear of every *form*—which is what he calls *privation*—before it can admit of any.

Hence *privation* was defined—*Negatio formæ in subjecto apto ad habendam talem formam*.

According to Plato, *privation*, in the sense of limitation or imperfection, is a condition of all finite existence, and the necessary cause of evil. Leibnitz, after Augustine, Aquinas, and others, held similar views.—V. NEGATION.

PROBABILITY (*probabilis*, provable), capable of proof according to known conditions of existence. That which, while not demonstrated, does not involve absurdity or contradiction is *probable*, or admits of proof. "As demonstration is the showing the agreement or disagreement of two ideas, by the intervention of one or more proofs ; so *probability* is nothing but the appearance of such an agreement or disagreement, by the intervention of proofs, whose connection is not

constant and immutable, or at least is not perceived to be so, but is enough to induce the mind to judge the proposition to be true or false, rather than the contrary" (Locke, *Essay*, bk. iv. ch. xv. sec. 1). "The entertainment the mind gives this sort of propositions, is called belief, assent, or opinion" (*ib.*, sec. 3).

"The grounds of probability are, first, the conformity of anything with our own knowledge, observation, and experience. Second, the testimony of others, vouching their observation and experience" (*ib.*, sec. 4; Reid, *Intellectual Powers*, essay vii. ch. iii.).

"The word *probable*," says Stewart (*Elements*, pt. ii. ch. ii. sec. 4), "does not imply any *deficiency* in the proof, but only marks the particular nature of that proof, as contradistinguished from another species of evidence. It is opposed not to what is *certain*, but to what admits of being demonstrated after the *manner of the mathematicians*. This differs widely from the meaning annexed to the same word in popular discourse; according to which, whatever event is said to be *probable*, is understood to be accepted with some degree of doubt."—V. CHANCES.

PROBLEM (πρόβλημα, from προβάλλω, to throw down, to put in question). - Any proposition attended with doubt or difficulty, which may be attacked or defended by probable arguments. It is almost synonymous with *Question*, and is applied generally to the subject of discussion. In Mathematics it is opposed to *Theorem*.

PROBLEMATIC.—Applied to judgments by Kant, in contrast with assertive and apodeictic. "Problematic judgments are those in which the affirmation or negation is accepted as merely possible" (Kant's *Critique of Pure Reason*, Meiklejohn, p. 61). - V. MODALITY.

PROGRESS. - V. PERFECTIBILITY.

PROMISE.—A voluntary pledge to confer some benefit or render some service at a future time.

For a *promise*, three things are necessary:—(1) Voluntary consent; (2) expression of intention; (3) acceptance of the declared intention.

That *promises* should be fulfilled,—not because it is expedient, but because it is right to do so, is a clear requirement of moral law.

The various questions concerning the parties competent to give a valid *promise*, the interpretation of the terms in which it may be given, and the cases in which the obligation to fulfil it may be relaxed or dissolved, belong to what may be called the *Casuistry of Ethics*, and *Natural Jurisprudence*.—
V. CONTRACT.

PROOF.—Evidence (1) confirmatory of a proposition; (2) adequate to establish it. Applied both to deductive and inductive reasoning. Hume would limit it to deduction. “To conform our language more to common use, we ought to divide arguments into demonstrations, *proofs*, and probabilities. By *proofs* we mean such arguments from experience as leave no room for doubt or opposition” (Hume, *Inquiry*, sec. 6, note). Whately contrasts *proof* with *inference*, and says that proving may be defined “the assigning of a reason or argument for the support of a *given* proposition,” and *inferring* “the deduction of a conclusion from given premises.”—
V. EVIDENCE, INFERENCE.

PROPENSION.—“A predisposition to the desire of some enjoyments,” which may stand in contrast with “inclination,” as an active disposition (Abbot, Kant’s *Theory of Ethics*, p. 43).—
V. INCLINATION.

PROPERTY (Proprium).—(1) *Logical use.* Those qualities or attributes which constitute the connotation of a Term are called *essential*; those which may be inferred from, or which constantly accompany the former, are called *Properties*. Extension, *e.g.*, is an essential quality of Matter, forming part of the connotation of the term; colour is a *property*, being a constant accompaniment of matter, though not belonging to its essence. *Properties* are—(a) *Generic*, or those which may be predicated of all the species of any given genus; *e.g.*, “rationality” is the *generic property* of “man”; (b) *Specific*, or those which may be predicated of all the individuals contained under an *infima species*; *e.g.*, “risibility” is the *specific property* of “man.”

2. *Use in Ethics and Political Economy*.—Personal possession over which right has been acquired in view (a) of the use of powers in producing, or (b) of the rights of transference. Possession lies at the foundation of all questions of exchange, as these are treated in political economy, including all the relations of labour and capital.

PROPOSITION.—A judgment expressed in words. The proposition consists of three parts, the *Subject*, *Predicate*, and *Copula* (see these terms).

Propositions are either *categorical* or *conditional*.

(1) A *Categorical proposition* declares a thing absolutely, as, "Man is not infallible." It asserts simply or unconditionally agreement or disagreement of subject and predicate.

(2) A *Conditional proposition* asserts, not absolutely, but conditionally or hypothetically. Such *propositions* are denoted by the conjunctions used in stating them. Conditional propositions are either *Conjunctive*, also called *Hypothetical*, or *Disjunctive* (see these terms), e.g., "If man is fallible, he is imperfect:" this is called a *hypothetical* or *conjunctive proposition*, denoted by the conjunction "if." "It is either day or night:" this is a *disjunctive* proposition, and is denoted by the disjunctive conjunction "either."

Mill distinguishes Real Propositions from Verbal. He would include under the class *verbal propositions* "all the propositions which have been called *essential*." "An essential proposition is one which is purely verbal; which asserts of a thing under a particular name only what is asserted of it in the fact of calling it by that name; and which, therefore, either gives no information, or gives it respecting the name, not the thing. Non-essential, or accidental propositions, on the contrary, may be called Real Propositions, in opposition to Verbal. They predicate of a thing some fact not involved in the signification of the name by which the proposition speaks of it; some attribute not connoted by that name" (Mill, *Logic*, bk. i. ch. vi. sec. 4).

As to *Quality*, propositions are either *affirmative* or *negative*, according as the predicate is said to agree or not to agree with the subject, e.g., "Man is an animal," is an *affirmative*

proposition; "Man is not perfect," is a *negative* proposition. As to *Quantity*, propositions are *universal* or *particular*, according as the predicate is affirmed or denied of the *whole* of the subject, or only of *part* of the subject, e.g., "All tyrants are miserable," is a *universal* proposition; "Some islands are fertile," is a *particular* proposition.

In reference to *Quantity* and *Quality* together, propositions are designated by the vowels, A E I O. Universal Affirmative = A, Universal Negative = E; Particular Affirmative = I, Particular Negative = O. "Asserit A, negat E, sed universaliter ambo. Asserit I, negat O, sed particulariter ambo." Thus an example of A is, "All tyrants are miserable;" of E, "No miser is rich;" of I, "Some islands are fertile;" of O, "Some men are not wise."

PROPRIETY (τὸ πρέπον), fitness or congruity to the agent, and the relations in which he is placed. Some make this fitness the criterion of right action. For notices of these theories, see Adam Smith's *Mor. Sent.*, pt. vii. sec. 2, ch. i.; Mackintosh's *Dissertation*, Sidgwick's *History of Ethics*, p. 175; Sidgwick's *Method of Ethics*, bk. iii. ch. xiii. sec. 3.—**V. FITNESS.**

PROPRIUM.—**V. PROPERTY.**

PROSYLLOGISM.—**V. EPICHEIREMA, EPISYLOGISM.**

PROTOPLASM (πρῶτος, first; and πλάσσω, I form). (1) It is named by Huxley, "the physical basis of life" (*Lay Sermons*, p. 132); (2) "a semi-fluid substance," found in living cells "transparent, colourless, not diffuent, but tenacious, and slimy" (Quain's *Anatomy*, i., xv., 7th ed.). The nourishing property which contributes to the development of life (cf. Hutchison Stirling, *As regards Protoplasm*).

PROVERB,—practical truth in epigrammatic form.

PROVIDENCE, divine superintendence, specially as manifested in care of moral life with a regard to moral ends. "What in opposition to fate constitutes the ruling principle of the universe into a true God, is *Providence*" (Jacobi).

Whatever is created can have no necessary or independent existence; the same power which called it into being must continue to uphold it in being. And if the beauty and order

which appear in the works of nature prove them to be the effects of an intelligent designing cause, the continuance of that beauty and order argues the continued operation of that cause. The existence of God implies his *providence*. The arguments which prove that there is a providence, prove that it must be particular. The providence of God can be called general only from its reaching to every object and event, and this is the sense in which we are to understand a particular providence. But while the providence of God extends to every particular, it proceeds according to general laws. While, however, these laws are fixed, they may admit of what we think deviations; so that both what we call the law, and what we call the deviation from the law, may be embraced in the plan of *providence* (Sherlock, *On Providence*, M'Cosh, *Meth. of Div. Govern.*, bk. ii. ch. ii.).

PRUDENCE (*prudentia*, contracted for *providentia*, foresight or forethought), the habit of acting with deliberation and forethought in view of the lessons of experience. It is equally removed from rashness on the one hand, and from timidity or irresolution on the other. It consists in choosing the best ends, and prosecuting them by the most suitable means. One of the cardinal virtues of ancient ethics, otherwise named Wisdom.

"The Platonic division of the duties of morality commences with the prudential or the habit of act and purpose proceeding from enlightened self-interest (*quæ animi imperio, corporis servitio, rerum auxilio, in proprium sui commodum et sibi providus ulitur, hunc esse prudentem statuimus*); ascends to the moral, that is, to the purifying and remedial virtues, and seeks its summit in the imitation of the divine nature. In this last division, answering to that which we have called the spiritual, Plato includes all those inward acts and aspirations, waitings, and watchings, which have a growth in godlikeness for their immediate purpose, and the union of the human soul with the supreme good as their ultimate object" (Coleridge, *Aids to Reflection*). Aristotle's rules of prudence, in view of the difficulty of hitting the mean, were—(1) Of the two extremes, shun the worst; (2) avoid the evil to which you are

personally prone; (3) guard chiefly against the pleasurable and pleasure itself (*N. Ethics*, ii. 9).—*V. MORALITY.*

PSYCHIC and PSYCHICAL.—Pertaining to the soul. Applied to forces and phenomena distinctive of mind. Used in contrast with *physical*.

PSYCHOLOGY (*ψυχή*, the soul; *λόγος*, discourse).—A theory of the nature and powers of the Mind, based upon the analysis and interpretation of the facts of consciousness, as these are distinct from each other, and as they are related to each other. Its method is observational and inductive, by means of introspection; its first requirement is Analysis, in order to distinguish things which differ; its second, Synthesis, in order to interpret the laws of coherence in accordance with which the unity of consciousness is secured.

Socrates enforced it as the essential duty of the philosopher, in accordance with the Delphic utterance, *γνῶθι σεαυτόν*,—Know thyself; and in modern times Psychology has been recognised as the leading preliminary division of mental philosophy. In the earlier stage of its history, it was largely analytic, the main object being to determine the characteristic powers of mind. This holds true from Descartes to Reid and Stewart. In the later stage, it has become more prominently synthetic, largely under the guidance of Kant and Hegel, but also under the influence of the development theory, supported by biological speculation as to evolution.

Psychology does not stand in antagonism to Physiology, but in contrast,—the latter giving the laws of organism, the former the laws of consciousness. While body and mind are so constituted and united as to imply one life, the laws of organism cannot account for thought,—the laws of consciousness cannot explain organic action. Yet Psychology cannot ignore the physiological conditions of mental phenomena, and in investigating these it borders on the province of Physiology, and must come into harmony with it.

“Goelenius is remarkable as the author of a work, the title of which is *ψυχολογία* (Marburg, 1594). This I think the first appearance of *psychology*, under its own name, in modern philosophy. Goelenius had, as a pupil, Otto Casmann, who

wrote *Psychologia Anthropologica, sive animæ humanæ doctrina* (Hanau, 1594)" (Cousin, *Hist. of Mod. Phil.*, translated by Wright, ii. 45; Hamilton, *Lects. on Metaph.*, i. 135).

Psychology has been divided into two parts—(1) The *empirical*, having for its object the phenomena of consciousness, and the faculties by which they are produced; (2) the *rational*, having for its object the nature or substance of the soul. *Rational Psychology*, which had been chiefly prosecuted before his day, was assailed by Kant, who maintained that apart from experience we can know nothing of the soul. The Ego, he says, being the universal subject of experience, cannot become its own object. The Ego, which is the object of "internal sense," is not the Ego in itself, but the phenomenal Ego; hence we are limited here, as everywhere, to the field of experience. Psychology must be *empirical* (Kant's *Critique of Pure Reason*, introd. to *Æsthetic*).

Psychology has frequently been identified with *Theory of Knowledge* or *Epistemology*, and even with *Metaphysics* or *Philosophy*, as by Hamilton. These are now being more strictly defined, and *Psychology* is being confined to *Empirical Psychology*, regarded as a *science*, and therefore not directly belonging to Philosophy, and differentiated from the other sciences by (a) its province—*mental* phenomena, and (b) its mode of inquiry—*introspection* (cf. Jouffroy, *De la Légitimité et de la Distinction, de la Psychologie, et de la Physiologie*, in his *Nouveaux Milanges*). For Comte's objection to Introspection—*Positive Philosophy*, Martineau, i. 11; Calderwood's *Moral Philosophy*, p. 5; Lotze's *Microcosmus*, i. 170–181; Sully's *Outlines of Psychology*; Martineau's *Types of Ethical Theory*, i. 433, ii. 6, 7; art. "Psychology," *Encyclopædia Britannica*, by Ward; Ribot, *Psychologie Allemande*, and *English Psychology*, transl.; Lewes, *Study of Psychology*.

PSYCHO-PHYSICS.—A science of recent growth, whose object is the investigation of the relations between the psychical and the physical, by the study of the mathematical relation between the degree of sensation and the force of the stimulus (*q.v.*). Its chief representatives are Fechner, Wundt, and Helmholtz; and the greatest generalisation reached by it is called

Weber's or *Fechner's Law*, viz., that the increase in intensity of a sensation in arithmetical progression is accompanied by the increase of the stimulus in geometrical progression (see Ribot, *Psychologie Allemande*; Sully, *Outlines of Psychology*, p. 35, note; Lotze's *Metaphysics*, p. 453).

PUNISHMENT, penalty.—(1) *Absolute*, the painful experience due to the moral agent wilfully transgressing moral law. Moral necessity, though it is not constraint, is a veritable necessity. If the morally right is the rational, the irrational is a penalty in itself, a disorder, a disturbance of the nature, a self-inflicted injury. Reward and Penalty are correlative; as absolute and sure as the law which says—"Thou shalt."

(2) *Relative*, the penalty imposed by society, or by legalised authority, on account of misdeeds enumerated by positive enactment, (a) varying in degree according to the refinement of feeling in society; (b) in its end, deterrent. It may have connected with its form appliances aiming at reformatory results, but such results do not belong to the nature or end of punishment. These views may be distinguished as (1) the retributive, (2) the corrective, (3) the deterrent. Hegel, who adopts the retributive theory, holds that as wrong is the negative of right, so punishment or retribution is the negation of that negative.

Professor Bain describes dutiful actions as "the class of actions enforced by the sanction of punishment" (*Emotions and Will*, p. 254). On the necessity for punishment as an act of society—Mill's *Examination of Hamilton*, p. 575; Bradley's *Ethical Studies*, p. 24.

PURE.—Applied by Kant to an exercise of mind which has no admixture of the results of experience; involving only what the mind itself gives. Pure is non-empirical. Thus he uses "pure Idea," an Idea which is not empirical, and whose object is not represented in experience; and "pure Reason," which is Reason in itself alone, without any mixture of sensibility. So also, "pure Reverence" is reverence for moral law, when that is the sole or single motive for action.

PURPOSE.—The intelligently selected and deliberately cherished aim for the sake of which a person acts.—V. END, CAUSE (FINAL).

PYRRHONISM.—*V.* SCEPTICISM, ACADEMICS.

QUALITY (ποῖος, ποιότης, *qualis*, *qualitas*, suchness), property of an object,—the difference which distinguishes substances.

Qualities are distinguished as *essential*, or such as are inseparable from the substance—as thought from mind, or extension from matter; and *non-essential*, or such as we can separate in conception from the substance—as passionateness or mildness from mind, or heat or cold from matter. This distinction is expressed by Spinoza as that between *Attributes* and *Modes* (*q.v.*). Qualities are also divided into *natural* and *acquired*.

Metaphysicians have distinguished the *qualities* of matter into *primary* and *secondary*, and have said that our knowledge of the former, as of impenetrability and extension, is clear and absolute; while our knowledge of the latter, as of sound and smell, is obscure and relative. This distinction was made by Descartes, and adopted by Locke, and also by Reid and Stewart. It was rejected by Berkeley, who maintained that the “primary” qualities are equally subjective with the “secondary.” In this he was followed by Hume. Kant distinguishes between the *à priori* and the *à posteriori* of perception, and considers Space (“Extension” = Spatial existence) as the universal and necessary condition of sense-experience. From this he distinguishes the “given” or “manifold,” as the “matter” of which Space is the “form.”

See Locke, *Essay on Hum. Under.*, bk. ii. ch. viii. sec. 9, *ff.* See the distinctions precisely stated by Hamilton, *Reid's Works*, note D; ingeniously controverted by Saisset, in *Dict. des Sciences Philos.*, art. “Matière.”—*V.* MATTER, PRIMARY.

Quality of Propositions.—See PROPOSITION.

Quality (Occult).—“It was usual with the Peripatetics, when the cause of any phenomena was demanded, to have recourse to their *faculties* or *occult qualities*, and to say, for instance, that bread nourished by its nutritive *faculty* (*quality*), and senna purged by its purgative (Hume, *Dial. on Nat. Hist. of Relig.*).

“Were I to make a division of the *qualities* of bodies as they appear to our senses, I would divide them first into those

that are *manifest*, and those that are *occult*. The *manifest qualities* are those which Locke calls *primary*. . . .

"The second class consists of *occult qualities*, which may be subdivided into various kinds—as *first*, the secondary *qualities*; *secondly*, the disorders we feel in our own bodies; and *thirdly*, all the *qualities* which we call powers of bodies, whether mechanical, chemical, medical, animal, or vegetable; or if there be any other powers not comprehended under these heads. Of all these the existence is manifest to sense, but the nature is *occult*" (Reid, *Intellectual Powers*, essay ii. ch. xviii., Hamilton, *Discussions*, p. 647).

QUANTITY (πόσον, *quantum*, how much),—(1) measure; (2) in a more restricted sense, "that which admits of more or loss."

"Mathematics contain properly the *doctrine of measure*, and the object of this science is commonly said to be *quantity*, therefore, *quantity* ought to be defined, *what may be measured*. Those who have defined *quantity* to be *whatever is capable of more or less*, have given too wide a notion of it, which, it is apprehended, has led some persons to apply mathematical reasoning to subjects that do not admit of it. Pain and pleasure admit of various degrees, but who can pretend to measure them?" (Reid, *Essay on Quantity*).

"According to the common definition, *quantity* is that which is susceptible of augmentation or diminution. But many things susceptible of augmentation and diminution, and that even in a continuous manner, are not *quantities*. A sensation, painful or pleasing, augments or diminishes, and runs through different phases of intensity. But there is nothing in common between a sensation and *quantity*" (*Dict. des Sci. Phil.*).

Continuous and Discrete Quantity.—"In magnitude and multitude we behold the two primary, the two grand and comprehensive species, into which the *genus* of *quantity* is divided; magnitude, from its union, being called *quantity continuous*; multitude, from its separation, *quantity discrete*" (Harris, *Phil. Arrange.*, ch. ix.).

"Of *continuous quantities* there are two kinds,—one, of which the parts are coexistent, as in extension; another, in which

he parts are successive, as in duration. Discrete and continuous *quantities* are sometimes called *multitude* and *magnitude*" Fitzgerald, *Notes to Aristotle's Ethics*; Aristotle, *Categor.*, ch. vi.).

Quantity of Propositions, see PROPOSITION.

QUANTIFICATION OF THE PREDICATE.—The quantity of a proposition taken as a whole, depends upon that of the subject, and hence in the Aristotelian Logic, only the subject is *quantified*, this quantity of the predicate being implied in the quality of the proposition. Thus in all *affirmative* propositions the predicate must be regarded as *particular*, while in all *negative* propositions it is universal. All that we assert in an affirmative proposition is that the predicate includes the subject. Thus in the proposition: All stones are minerals, we only employ the word minerals in so far as it coincides with the word stones; that is only in a part of its extension. In a negative proposition, we assert that no part of the subject is contained in any part of the predicate. Thus when I say, No stones are metals, I exclude the notion "stones" from the *entire extension* of the word "metals," and consequently use it in its whole generality (Morell, *Handbook of Logic*).

Hamilton advocates the *Quantification of the Predicate*, on the ground that what we think implicitly we should state explicitly: Thus, when we say, All stones are minerals, we think, All stones are *some* minerals, and this should appear in the form of the proposition. The consequence of quantifying the predicate would be, he contends, the increase of the fundamental propositional forms from four to eight. In addition to A, E, I, and O, we should have, according to Hamilton's nomenclature, U, Y, ω, and η. This is the substance of the advance in Logic proposed in Hamilton's *New Analytic of Logical Forms*.

The question turns upon whether we actually in thought quantify the predicate or not, and this again upon whether we naturally think the predicate in extension or in intension, *i.e.*, whether the *equational* or the *attributive* view of Judgment is true.—**V. JUDGMENT.** If both the subject and predicate are naturally thought in extension, and the proposition is an equation, then both alike should be quantified. But if the predicate is naturally intension, and the proposition is the

attributive of its intension to the subject, then the predicate should not be quantified, since such quantification would not be the interpretation of our actual thought. Venn contends that the *predicative* (or *attributive*) view, and the four forms of the traditional logic founded upon it, represent with sufficient accuracy our ordinary psychological procedure. This, however, he maintains, would be no objection to Hamilton's theory, provided the latter represented a possible view of the proposition maintained consistently throughout. But he seems to prove that Hamilton's scheme is the result of a confusion between the ordinary view and the view which takes the proposition as asserting the relation of classes to one another (their mutual inclusion or exclusion), *i.e.*, the *equational* view. The latter view gives, he shows, *five* possible forms. Hamilton was misled by his love of symmetry to double the original table, though η and ω are not diagrammatically possible, and the assertion of I involves the assertion of O, *some*, on this scheme, being necessarily equal to *some but not all* (see Venn, *Symbolic Logic*, ch i.; Hamilton, *Lectures on Logic*, Baynes, *New Analytic of Logical Forms*; Ueberweg, *System of Logic*, app. B, by Lindsay).—[J. S.]

QUIDDITY or QUIDITY (*quidditas*, from *quid*, what).—This term was employed in scholastic philosophy as equivalent the τὸ τί ἦν εἶναι of Aristotle, and denotes what was subsequently called the *substantial form*. It is the answer to the question, What is it? *quid est*? It is that which distinguishes a thing from other things, and makes it what it is, and not another. It is synonymous with *essence*, and comprehends both the substance and its qualities. *Quiddity* is the being of a thing considered in order to a definition explaining *what* it is. It is the complement of all that makes us conceive anything as we conceive it.

QUIETISM (*quies*, rest), the theory which represents the contemplative life as the highest in contrast with the life of activity.

A controversy was carried on by Fenelon and Bossuet on this subject (see Bonnel, *De la Controversé de Bossuet et Fenelon, sur le Quiétisme*; Upham, *Life of Madame Guyon*, who held that souls might be carried to such a state of perfection that a

ontinual act of contemplation and love might be substituted for all other acts of religion).—*V. MYSTICISM.*

RATIO.—(1) Reason; (2) method, (3) proportion, when things are compared. When two subjects admit of comparison with reference to some quality which they possess, the measure shows their *ratio*, or the rate in which the one exceeds the other. In mathematics, the term *ratio* is used for *proportion*; thus, we speak of the *ratio* which one thing bears to another. In Logic the Extension and Intension of a term are often, though incorrectly, said to be in *inverse ratio*.

RATIOCINATION.—Reasoning; the process which guides an inference. “Reasoning is a modification from the French *raisonner* (and this a derivation from the Latin, *ratio*), and corresponds to *ratiocinatio*, which has indeed been immediately transferred into our language under the *ratiocination*.” This term “denotes properly the process, but, improperly, also the product of reasoning” (Hamilton’s *Logic*, i. 278).

“When from a general proposition . . . by combining it with other propositions, we infer a proposition of the same degree of generality with itself, or a less general proposition, or a proposition merely individual, the process is *ratiocination* (or syllogism)” (Mill, *Logic*, bk. ii. ch. i. sec. 3)—*V. RATIONAL REASONING.*

RATIONALE.—The rational basis for a proposition, system, or order of things.—*V. REASON.*

RATIONALISM.—(1) In Philosophy. The system which makes our Rational power the ultimate test of truth. The opposite theory is named Sensationalism, as it makes all knowledge depend on the senses, or Empiricism, as it makes all knowledge depend on experience. According to Rationalism, experience is impossible without intelligence as a prerequisite. The Critical Philosophy of Kant is pre-eminently a scheme of Rationalism as opposed to the Sensationalism which culminated in Hume’s scepticism. It finds that Experience in all its forms, even Sensation, is fundamentally constituted by elements whose source is Reason.

It is also opposed to *Empiricism*, which refers all our knowledge to sensation and reflection, or experience. According to

rationalism, reason furnishes elements, without which experience is impossible.

(2) In THEOLOGY, Rationalism is opposed to *Supernaturalism*, and maintains that Reason is the ultimate test of revelation, insomuch that what cannot be harmonised with reason, cannot be accepted as true revelation. Supernaturalism maintains that there is a revelation, within the limits of human form, of truth unattainable by reason, and on this account incapable of being tested by reason.

Spinoza, in his *Tractatus Theologico-Politicus*, tried to explain all that is supernatural in religion by reason. And Strauss and others in modern Germany have carried this line of speculation much farther.

REAL (The).—The existent. (1) As opposed to the *non-existent*, (2) as opposed to the *nominal* or *verbal*; (3) as synonymous with *actual*, and thus opposed (*a*) to *potential*, and (*b*) to *possible*, existence; (4) as opposed to the *phenomenal*, things in themselves in opposition to things as they appear relatively to our faculties, (5) as indicating a subsistence in nature in opposition to a representation in thought, *ens reale*, as opposed to *ens rationis*; (6) as opposed to *logical* or *rational*, a thing which in itself, or *really*, *re*, is one, may logically, *ratione*, be considered as diverse or plural, and *vice versa* (abbreviated from Hamilton, *Reid's Works*, note B, p. 805).

Green maintains that the *Real* consists in Relations (*Prologomena to Ethics*, bk. i.). The nature of Reality may indeed at once be said to be the leading question in Metaphysics (see Mansel, *Metaphysics* (Ontology); also Bosanquet, *Knowledge and Reality*).

REALISM, as opposed (1) to *nominalism*, is the doctrine that *genus* and *species* are *real things*, existing independently of our conceptions and expressions; and that, as in the case of singular terms, there is some real individual corresponding to each, so, in common terms also, there is something corresponding to each; which is the object of our thoughts when we employ the term (*V. Whately, Logic*, bk. iv. ch. v. sec. 1). (1) According to Realism the universal exists *ante rem* or *in re*.

The former type of doctrine originates in Plato's Ideal theory ; the latter in Aristotle.

Realism, as opposed (2) to *Idealism*, is the doctrine that in perception there is an immediate or intuitive cognition of the external object, while according to *Idealism* our knowledge of an external world is mediate and representative (Hamilton, *Reid's Works*, note c). "The presentationists or intuitionists constitute an object into a sole absolute or total object, viewing the one total object of perceptive consciousness as *real*, they are Realists" (Hamilton, note c, *Reid's Works*, 816). "If the object is not in contact with the organ of sense, there must be some medium which passes between them. Thus in vision the rays of light, in hearing the vibrations of elastic air, in smelling the effluvia of the body smelled—must pass from the object to the organ ; otherwise we have no perception" (Reid's *Inquiry*, sec. 21 ; Hamilton's, p. 186). "The only object of *perception* is the immediate object. The distant reality is unknown to the perception of sense, and only reached by reasoning" (Hamilton, *ib.*). "To determine what belongs to the Ego and what to the non-Ego is the great problem of recent times, the answer to which is *idealistic* or *realistic*, in proportion as it gives ascendancy to the former or to the latter as the source of our cognitions" (Martineau's *Types of Ethical Theory*, ii. 2 ; Thomson, *Outline of Laws of Thought*, 3rd ed., sec. 64).

REASON (*Ratio*, from *reor*, to think) —(1) A general name for the intellectual nature of man ; (2) the faculty of the higher intuitions, or of *a priori* truth, in contrast with Reasoning ; (3) the evidence or rational ground upon which a conclusion rests. Ordinary usage makes the term apply to power or faculty. (1) The more general application occurs when we speak of man as distinguished by "reason" (Locke's *Essay*, bk. iv. ch. xvii.). Although (2) is the use distinctive of Kant ; he also uses the term in the wider sense, adopting "Pure Reason" to describe the higher faculty. "Our purpose at present is merely to sketch the plan of the *Architectonic* of all cognition given by *pure reason* ; and we begin from the point where the main root of human knowledge divides into two, one

of which is *reason*. By reason I understand here the whole higher faculty of cognition, the *rational* being placed in contradistinction to the *empirical*" (*Critique of Pure Reason*, Meiklejohn, p. 505) The Reason—or Pure Reason, as Kant recognises it—is the faculty of the higher intuitions—"the highest faculty of cognition" (*ib.*, p. 212); "it contains in itself the source of certain conceptions and principles which it does not borrow either from the senses or the understanding" (*ib.*).

Considering it as a word denoting a faculty or complement of faculties, Hamilton, *Reid's Works*, note A, sec. 5, says, "*Reason* has been employed to denote—

"1. Our intelligent nature in general, as distinguished from the lower cognitive faculties, as sense, imagination, and memory; and in contrast to the feelings and desires, including—(1) Conception; (2) Judgment; (3) Reasoning; (4) Intelligence (*νοῦς*).

"2. The legitimate employment of our faculties in general.

"3. The dianoetic and noetic functions of *reason* (as distinguished by Reid, *Intellectual Powers*, essay vi ch. 11.).

"4. The dianoetic function alone or ratiocination, as by Reid in his *Inquiry*, introd., ch. i. sec. 3; ch. ii. sec. 5.

"5. The noetic function alone or common sense. Thus by Kant and others opposed (as *Vernunft*) to Understanding (*Verstand*) viewed as comprehending the other functions of thought."

In the philosophy of Kant the *understanding* is distinguished from the *reason*—

1. By the sphere of their action. The sphere of the *understanding* is coincident with the *sensible* world, and cannot transcend it; but the *reason* ascends to the super-sensible.

2. By the *objects* and results of their exercise. The *understanding* deals with *conceptions*, the *reason* with *ideas*. The categories of the understanding are *constitutive*, *i.e.*, have a direct reference to experience, of whose fundamental objective constitution they are the essential elements. The ideas of reason, on the other hand, are *regulative*, *i.e.*, do not apply directly to experience, as forming the ground-constitution of its objects, but are only ideals towards the realisation of which experience is always making. This, however, is, according to

Kant, the only legitimate application of the ideas of reason ; and from the constant and necessary tendency of reason to apply them beyond the sphere of experience, or transcendently, arises the *dialectic* of pure reason. The error consists in the illusion that reason is competent to produce her own object, while in reality, in the speculative sphere, her only legitimate activity is to regulate the understanding in its constitution of the objects of experience.

See *Critique of Pure Reason*, Meiklejohn, pp. 213, 256 ; *Prolegomena*, sec. 59 ; cf. Coleridge, *Aids to Reflection*.

"By the *understanding*, I mean the faculty of thinking and forming *judgments* on the notices furnished by the sense, according to certain rules existing in itself, which rules constitute its distinct nature. By the *pure reason*, I mean the power by which we become possessed of principles (the eternal verities of Plato and Descartes) and of ideas (*n.b.*, not images), as the ideas of a point, a line, a circle, in mathematics ; and of justice, holiness, free will, &c., in morals. Hence in works of pure science, the definitions of necessity precede the reasoning ; in other works they more aptly form the conclusion" (Coleridge, *Friend*).

"Mr Coleridge's object in his speculations is nearly the same as Plato's, viz., to declare that there is a truth of a higher kind than can be obtained by mere reasoning ; and also to claim, as portions of this higher truth, certain fundamental doctrines of morality. Among these Mr Coleridge places the authority of conscience, and Plato the supreme good. Mr Coleridge also holds, as Plato held, that the *reason* of man in its highest and most comprehensive form, is a portion of a supreme and universal *reason* ; and leads to truth, not in virtue of its special attributes in each person, but by its own nature.

"The view thus given of that higher kind of knowledge which Plato and Aristotle place above ordinary science, as being the knowledge of and faculty of learning first principles, will enable us to explain some expressions which might otherwise be misunderstood. Socrates, in the concluding part of the Sixth Book of the *Republic*, says, that this kind of know-

ledge is 'that of which the *reason* (λόγος) takes hold, *in virtue of its power of reasoning*' (τῇ τοῦ διαλέγεσθαι δυνάμει). Here we are plainly not to understand that we arrive at first principles by *reasoning*; for the very opposite is true, and is here taught, viz., that first principles are not what we *reason to*, but what we *reason from*. The meaning of this passage plainly is, that first principles are those of which the *reason* takes hold in *virtue of its power of reasoning*; they are the conditions which must exist in order to make any reasoning possible; they are the propositions which the *reason* must involve implicitly, in order that we may *reason* explicitly; they are the intuitive roots of the dialectical power.

"Plato's views may be thus exhibited:—

	Intelligible World, νοητόν.		Visible World, δρατόν.	
Object, .	Ideas. ἰδέαι.	Conceptions. διάνοια.	Things ζῶα, κ.τ.λ.	Images. εἰκόνες.
Process, .	Intuition. νόησις.	Demonstration ἐπιστήμη.	Belief. πίστις.	Conjecture εἰκασία.
Faculties,	Intuitive Reason. νοῦς.	Discursive Reason. λόγος.	Sensation. αἴσθησις.	

Whewell, *On the Intellectual Powers according to Plato*, in the Cambridge *Phil. Trans.*, 1855.

REASON (Impersonal).—*Reason*, according to Cousin and other French philosophers, is the faculty by which we have knowledge of the infinite and the absolute, and is *impersonal*.

"*Licet enim intellectus meus sit individuus et separatus ab intellectu tuo, tamen secundum quod est individuus non habet universale in ipso, et ideo non individuatur id quod est in intellectu. . . . Sic igitur universale ut universale est ubique et semper idem omnino et idem in animabus omnium, non recipiens individuationem ab anima.*"

These words are quoted from Averroes. The root and germ

of this doctrine may be found in the doctrine of Plato, that human *reason* is a ray of the Divine *reason*.

"In truth," observes Fenelon, "my *reason* is in myself, for it is necessary that I should continually turn inward upon myself in order to find it; but the higher reason which corrects me when I need it, and which I consult, is not my own, it does not specially make a part of myself. Thus, that which may seem most our own, and to be the foundation of our being, I mean our *reason*, is that which we are to believe most borrowed" (*Existence of God*; cf. Coleridge, *Later. Rem.*).

"*Reason* is impersonal in its nature; it is not we who make it. It is so far from being individual, that its peculiar characteristics are the opposite of individuality, viz, universality and necessity; since it is to *reason* that we owe the knowledge of universal and necessary truths, of principles which we all obey and cannot but obey. . . . It descends from God and approaches man; it makes its appearance in the consciousness as a guest who brings intelligence of an unknown world, of which it at once presents the idea and awakens the want. If *reason* were personal it would have no value, no authority beyond the limits of the individual subject. . . . *Reason* is a revelation, a necessary and universal revelation which is wanting to no man, and which enlightens every man on his coming into the world. *Reason* is the necessary mediator between God and man, the λόγος of Pythagoras and Plato, the Word made flesh, which serves as the interpreter of God, and the teacher of man, divine and human at the same time. It is not, indeed, the absolute God in his majestic individuality, but his manifestation in spirit and in truth; it is not the Being of beings, but it is the revealed God of the human race" (Cousin, *Exposition of Eclecticism*, transl. by Ripley).

This doctrine of the impersonal *reason* is regarded by Bouillier (*Theorie de la Raison impersonnelle*) and others as the true ground of all certainty. Admit the personality of *reason*, and man becomes the measure of all things. Truth is individual; but the truths of *reason* are universal. No one, says Malebranche, can feel the pain which I feel; but any one or every one can contemplate the truth which I know. So also on the

Hegelian view, Reason is essentially one and universal ; impersonal, though shared in by the individual.

REASON (Determining or Sufficient).—*V. SUFFICIENT REASON.*

REASONING, the rationalising process ; logical procedure of the understanding, leading to inference, whether from facts or from principles.

“ In one of its acceptations it means syllogising, or the mode of inference which may be called concluding from generals to particulars. In another of its senses, to reason is simply to infer any assertion from assertions already admitted ; and in this sense induction is as much entitled to be called *reasoning* as the demonstrations of geometry. Writers on Logic have generally preferred the former acceptation of the term ; the latter and more extensive signification is that in which I mean to use it ” (Mill, *Logic*, introd., sec. 2).—*V. RATIOCINATION*

RECIPROCITY.—The third of Kant's Categories of Relation. It is said by Kant to combine the other two in a third relation—that of a cause, which is at the same time an effect, the action and reaction of agent and patient. It is reached by “ conjoining the conception of a cause with that of a substance,” and is otherwise called the category of *Community* (see *Critique of Pure Reason*, p. 64 ff., Meiklejohn's transl.).

RECOLLECTION.—*V. REMINISCENCE.*

RECTITUDE.—Rightness ; the quality of an action as determined by moral law. To define “ rightness ” by reference to conscience is insufficient, appealing only to the mode of knowing, not to the thing known. “ The authority of conscience ” is an abbreviated form for “ authority of the moral law as made known by conscience.” Moral law is the ultimate rational basis of moral distinctions.

“ *Rectitude* of conduct is intended to express the term *κατόρθωσις*, which Cicero translates *recta effectio* (*De Fin.*, lib. iii. cap. 14) ; *κατόρθωμα* he translates *rectum factum* (*De Fin.*, lib. iii. cap. 7). Now, the definition of *κατόρθωμα* was *νόμου πρόσταγμα*, ‘ a thing commanded by law ; ’ that is, by the law of nature, the universal law ” (Harris, *Dialogue on Happiness*).

The representations of the basis of ethics vary according as theorists adopt the Utilitarian or Intuitionist scheme.

UTILITARIAN, OR HAPPINESS THEORY.—The basis here is the sensibility of our nature. "Actions are right in proportion as they tend to promote happiness; wrong as they tend to produce the reverse of happiness" (J. S. Mill's *Utilitarianism*, p. 9). Scheme of Evolution.—"Conduct is a whole, and, in a sense, it is an organic whole, an aggregate of interdependent actions performed by an organism" (Spencer's *Data of Ethics*, p. 5). "Ethics has for its subject matter that form which universal conduct assumes during the last stages of its evolution" (*ib.*, p. 19). "The good is universally the pleasurable" (*ib.*, p. 30, External Authority). "Morality is utility made compulsory" (Bain's *Emotions and Will*, 3rd ed., p. 276). "Morality is an institution of society. The powers that impose the obligatory sanction are Law and Society, or the community acting through the Government, by public judicial acts, and, apart from the Government, by the unofficial expressions of disapprobation, and the exclusion from social good offices" (*ib.*, p. 264).

RATIONAL THEORY.—The basis here is necessary law, independent of our nature, objective; and such law is known only through the rational nature, directly from the Reason, *à priori*, and by a direct or intuitive act.

"There must be in morals first or self-evident principles, on which all moral reasoning is grounded, and on which it ultimately rests." These "show us what man ought to be" (Reid's *Active Powers*, essay iii. pt. iii. ch. vi.; Hamilton, p. 590).

"There is an Imperative which, irrespective of every ulterior end or aim, commands categorically" (Kant's *Ethics*, Semple, 3rd ed., p. 29, "Groundwork," ch. ii.). "The good differs from the agreeable" (p. 26). "All ethical ideas have their origin and seat, *à priori*, in reason; in the reason of the unlettered, of course, as much as in that of the most finished sage" (p. 23).

Butler, although he insists mainly on our constitution, recognises the objective distinction:—"If it were commanded to cultivate the principles, and act from the spirit of treachery,

ingratitude, cruelty, the command would not alter the nature of the case or of the action" (*Analogy*, pt. ii. ch. iii.).

M'Cosh's *Intuitions*, pp. 252–357; Calderwood's *Handbook of Moral Philosophy*, Psychol., ch. iii. p. 30; Laurie's *Ethica*; Martineau's Idiopsychological Ethics, *Types of Ethical Theory*, vol. ii. Martineau presents his practical formula thus:—"Every action is right which in presence of a lower principle follows a higher: every action is wrong which in presence of a higher principle follows a lower" (ii. 250).

The Hegelian Dialectic reaches the Ethical in the evolution of personality or self-realisation, its maxim wearing this form, "Be a Person" (Hegel's *Philosophie des Rechts*, § 36). "The most general expression for the end in itself; the ultimate practical 'Why' we find in the words *self-realisation*" (Bradley's *Ethical Studies*, p. 59). "The idea of the absolutely desirable is identical with man's consciousness of himself as an end to himself." It is a "forecast of a well-being that shall consist in the complete fulfilment of himself" (Green's *Proleg. to Ethics*, p. 210).

REDINTEGRATION (Law of) (*re-integro*) reconstruction. "Parts of any total thought recalled into consciousness are apt to suggest the parts to which they were proximately related" (Hamilton's *Reid*, p. 897). This is a summary statement of the *Laws of Association* (*q.v.*).

REDUCTION.—The first figure of syllogism is called *perfect*; because—(1) it proceeds directly on the *Dictum de omni*, &c., and (2) it arranges the terms in the most natural order. All arguments, though stated originally in any of the other Figures, may be, in one way or other, brought into some one of the four moods in the first figure: and a syllogism is, in that case, said to be *reduced* (*i.e.*, to the First Figure). . . . Reduction is of two kinds—(1) *Direct* or *ostensive*, which consists in bringing the premisses of the original syllogism to a corresponding mood in the First Figure, by transposition or conversion of the premisses, and from the premisses thus changed deducing either the original conclusion, or one from which it follows by conversion. (2) *Indirect*, or *reductio per impossibile* or *ad absurdum*, by which we prove (in the First

Figure) not directly that the original conclusion is *true*, but that it *cannot be false*; i.e., that an absurdity would follow from the supposition of its being false. All the possible moods are capable of direct reduction except two, *Baroko* and *Bokurdo*.

Directions for the Reduction of the various moods are contained in the Mnemonic verses, *Barbara Celarent*, &c., to be found in all logical text-books.

One of the advantages, according to Hamilton, of the *Quantification of the Predicate* (*q.v.*), would be the abolition of the distinctions of Figure, and hence of the necessity of *Reduction*.

REFLECTION (*re-flecto*, to bend back).—(1) Attention directed upon the facts of personal experience—contrasted with external observation (*q.v.*); (2) in a wider sense, thought or the reasoning process, whatever its object. According to Locke, *Sensation* and *Reflection* are the sources of all our knowledge. "By *reflection* I would be understood to mean that notice which the mind takes of its own operations, and the manner of them; by reason whereof there come to be ideas of these operations in the understanding" (Locke, *Essay*, bk. ii. ch. 1. sec. 4).

Locke's use of the term is that followed by most philosophical writers, e.g., Reid, *Intellectual Powers*, essay i. ch. ii.; also ch. v., and essay vi. He gives a more extensive (but looser) signification to *reflection* (*Intellectual Powers*, essay iii. ch. v.).

Locke also calls reflection *internal sense* (bk. ii. ch. i. sec. 4), and in this he is followed by Kant, who opposes the *inner sense*, whose form is time, to the "outer sense," whose form is space. The object of this "inner sense" is the phenomenal or empirical Ego, i.e., the Self is manifested, under the form of Time, in the constantly varying "states of consciousness." This Kant distinguishes carefully from the Transcendental Ego, the universal Subject, which makes the empirical Ego, equally with all other objects of experience, possible. It is by the confusion of these two that the pretended science of Rational Psychology has arisen, that of Empirical Psychology being alone legitimate.

REFLEX ACTION.—Muscular activity, resulting directly from an impression made upon the sensitive organism,—the motor nerves being excited by sudden impression upon the nerves of sensation. Technically, action of subordinate divisions of the sensory system, without consciousness,—the movement being effected through a subordinate nerve-centre, named “excito-motor” in contrast with “sensori motor,” which implies consciousness of the impression (Carpenter’s *Mental Physiology*, 7th ed., p. 507).

REFLEX SENSE—Hutcheson’s name for a mental power, analogous to the senses, by which we have a perception of truth concerning relations. Its exercise is an act of perception, but it depends upon the understanding for its materials. He regards conscience as a Reflex Sense (*Inquiry into Beauty and Virtue*).

REGULATIVE (German, *Regulativ*).—Kant’s designation for conditions of intelligence not in themselves tests of objective truth, or constitutive of objects. “Regulative” thus stands in contrast with “Constitutive.”

The *first* application of this distinction is connected with some of the postulates of empirical thought, namely, classes iii. and iv. of the categories or pure conceptions of the understanding. He divides the table of the categories into two—(1) *Mathematical*, Quantity and Quality, which relate to “objects of intuition,” and (2) *Dynamical*, Relation and Modality, which relate to “the existence of objects either *in relation* to one another, or to the understanding.” This second division Kant regards as *regulative*,—affording “analogies of experience,” and “postulates of empirical thought.” While the two former, —Quantity and Quality,—are *constitutive* of objects. The case is different with those principles which bring under *à priori* rules the *existence* of objects. For here, existence being incapable of *à priori* construction, the propositions concerned will only refer to *relation of existence*, and consequently will avail to contribute only *regulative* principles. In this case, therefore, there will be no question of either *axioms* or *anticipations* (Kant’s *Critique of Pure Reason*, Meiklejohn, pp. 67, 134, 407; Stirling’s *Text-Book to Kant*, pp. 197, 285).

The *second* application of the term is connected with the Ideas,—God, the Soul, and the World. “Pure reason never relates *immediately* to objects, but to the *conceptions* of these contained in the understanding. . . . An *objective deduction*, such as we were able to present in the case of the categories, is impossible as regards these transcendental ideas. For they have in truth no relation to any object in experience, for the very reason that they are only ideas” (Kant’s *Critique of Pure Reason*, Meiklejohn, pp. 233-4). “I maintain that transcendental ideas can never be employed as constitutive ideas, that they cannot be conceptions of objects. . . . But on the other hand, they are capable of an admirable and indispensably necessary application to objects, as regulative ideas, directing the understanding to a certain aim, the guiding lines towards which all its laws proceed, and in which they all meet in one point. This point, though a mere idea (*fokus imaginarius*), that is, not a point from which the conceptions of the understanding do really proceed, for it lies beyond the sphere of possible experience—serves notwithstanding to give to these the greatest possible unity combined with the greatest possible extension” (*ib.*, p. 395).

RELATION (*refers, relatum*, to bear back). “When the mind so considers one thing that it does as it were bring it to and set it by another, and carries its view from one to the other, this is, as the words import, *relation* and *respect*; and the denominations given to positive things, intimating that respect, and serving as marks to lead the thoughts beyond the subject itself denominated to something distinct from it, are what we call *relatives*; and the things so brought together, *related*” (Locke, *Essay*, bk. ii. ch. xxv. sec. 1).

“Any sort of connection which is perceived or imagined between two or more things; or any comparison which is made by the mind, is a *relation*.” Relative is thus opposed to *absolute*, in the sense of independent existence (Taylor, *Elements of Thought*).

“Another way,” says Reid (*Intellectual Powers*, essay vi. ch. i.), “in which we get the notion of *relation* (which seems not to have occurred to Locke), is when, by attention to one of

the related objects, we perceive or judge that it must, from its nature, have a certain *relation* to something else, which before, perhaps, we never thought of; and thus our attention to one of the related objects produces the notion of a correlate, and of a certain *relation* between them" (see also Reid's *Inquiry*, ch. i. sec. 7).

Although *relations* are modes of viewing things, our ideas of *relation* are not vague nor arbitrary, but are determined by the known qualities of the related objects.

In the view of Kant, the Relative is the very essence of knowledge, the condition of truth, for it is only as objects are constituted by the forms of the understanding that knowledge is possessed. In the view of Hegel, the Relative becomes the true manifestation of Being, the orderly movement of the categories, involving relation, combination, and evolution, giving reality itself (*cf.*, Green's insistence on *Relation* as the essential nature of *Reality*, in *Prolegomena to Ethics*, pt. i.; see also Bosanquet, *Knowledge and Reality*).

RELATIVITY OF HUMAN KNOWLEDGE.—(1)

In most general and commonly accepted form, the doctrine that the nature and extent of our knowledge is determined not merely by the qualities of the objects known, but necessarily by the conditions of our cognitive powers. In knowing, we know the thing as related to our faculties and capacities; (2) that we do not know the thing, but only impressions made on our sensibility; that is, sensations awakened in us, and attendant feelings belonging to us. This leaves it debatable whether there are things or only ideas; and whether sensations are dependent on impressions from without, in some sense expressing the external. (3) That the mind, in the exercise of rational activity, and by application of its "forms" to the intuitions of the sensory, constitutes the objects of knowledge, from which it follows that we know only phenomena, not noumena,—that "the thing in itself" cannot be known.

In its *first* form the doctrine is the postulate of all philosophy,—the implication in every theory of knowledge. In its *second* form, there are included the antagonistic schemes of idealism and sensationalism. In its *third* form, we have the

theory of Kant, in some respects analagous to the second, but giving a different view of the mind's activity, and attributing a different sense to the "object" of knowledge.

We have the first formal expression of Relativity in the Maxim of Protagoras, that "man is the measure of the universe," showing its influence in the later thought of the Stoics, Epicureans, and Sceptics (*Diog. Laert.*, bk. ix. p. 51), where the formula of Protagoras is given thus:—*πάντων χρημάτων μέτρον ἄνθρωπος τῶν μὲν ὄντων ὡς ἐστὶ, τῶν δὲ οὐκ ὄντων ὡς οὐκ ἔστιν* (Ueberweg's *Hist.*, Morris, i. 74; as related to Socratic thought, Zeller's *Greek Philos.*, "Socrates," &c., Reichel, p. 95).

That our knowledge of things is relative or proportioned to our faculties must be admitted. *Omne quod cognoscitur non secundum sui vim cognoscitur sed secundum cognoscentium potius comprehendatum facultatem* (Boethius). We only know things in so far as our faculties are capable of apprehending them. That external objects have more qualities than our senses make known—and that with more senses we might have known more qualities if there be more to know, must be admitted; but this does not invalidate the knowledge which we have. So long as we are men our knowledge must be according to the measure of a man. But this is not the doctrine of the Relativity of our knowledge among philosophers. According to some (as Berkeley or Hume) we know nothing of things but the sensations or feelings which they give us. Of the things in themselves we know nothing, and there is no evidence of there being any thing corresponding to what we call substance.

In Modern Philosophy,—(a) *Idealism* (Berkeley). "The objects of human knowledge are either ideas actually imprinted on the senses; or else such as are perceived by attending to the passions and operations of the mind; or lastly, ideas formed by help of memory and imagination" (*Principles of Human Knowledge*, pt. i. p. 1). "The various sensations, or ideas imprinted on the sense, however blended or combined together (that is, whatever objects they compose), cannot exist otherwise than in a mind perceiving them" (*ib.*,

sec. 63). "The very existence of an unthinking being consists in being perceived" (*ib.*, sec 88; Fraser's *Selections*, 2nd ed., pp. 33, 35, 93). (b) *Sensationalism*. For Hume's positions, "that nothing is ever really present with the mind but its perceptions, or impressions, and ideas" (*Treatise of Human Nature*, bk. i. pt. ii. sec. 6). "It cannot be from any of the impressions that the idea of self is derived, and consequently there is no such idea" (bk. i. pt. iv. sec. 6; Green's ed., vol. i. pp. 371 and 533; see John S. Mill, *Exam. of Hamilton*, 3rd ed., p. 7). "An object is to us nothing else than that which affects our senses in a certain manner; and we are incapable of attaching to the word object any other meaning." For Mill's conception of the world, *ib.*, p. 222; of Mind, *ib.*, p. 236; see Herbert Spencer's *First Principles*, p. 68. For Hamilton's position, *cf. Discussions*, p. 643; *Reid's Works*, p. 825, *et inf. Metaph.* i. lect. viii. p. 136; *cf. A. Seth, Scottish Philosophy*, lect. v.

RELIGION (*relego, religo*).—Homage to the Deity in all the forms which pertain to spiritual life, in contrast with Theology, the theory of the Divine nature and government. This word, according to Cicero (*De Nat. Deorum*, ii. 28), is derived from, or rather compounded of *re* and *legere*, to read over again, to reflect upon or to study all the duties relating to the worship of the gods. According to Lactantius (*Div. Instit.*), it comes from *re-ligare*, to bind back—because *religion* is that which furnishes the true ground of obligation. St Augustine (*De Vera Relig.*) gives the same derivation of the word.

On the social effects of Religion (see Mill, *Essays on Religion*, p. 77).

RELIGION (Philosophy of).—A rational account of Religion, at once on its subjective and its objective sides; the correlation of the religious consciousness with the other forms of human experience, and the justification of its peculiar attitude toward its Object, viz., God. Whether there can be any Philosophy of Religion is questioned by many; and, although many attempts at such a scheme have been made, especially in Germany, this previous question of the justification of the Philosophy of Religion, as such, cannot be said to

have been answered. From the point of view of Rationalism (*q.v.*), the question does not, of course, arise; the possible reducibility of the whole content of religious experience to terms of reason being granted, such a reduction is the task of the Philosophy of Religion. In general, where Philosophy professes its ability perfectly to solve the problem of the universe, a Philosophy of Religion, *i.e.*, a solution of the ultimate relation of man to God, is the natural corollary. Where, however, such ability is not professed, but room is left for a principle of Faith, and especially where the fact of Revelation is admitted, the legitimacy of a Philosophy of Religion will naturally be denied. From the merely scientific point of view, again, that of Agnosticism (*q.v.*), there may be, as in Spencer, a *negative* Philosophy of Religion, or the justification of "religious" emotion in presence of the Unknown and Unknowable (see Kant, *Religion within the Limits of Pure Reason*; Hegel, *Philosophy of Religion*; Caird, *Philosophy of Religion*; Spencer, *First Principles*, pt. i.; and, for a sketch of the Kantian and Hegelian schemes, Seth, *Development from Kant to Hegel*). For *Positivist* Theory of Religion—*V. HUMANITY* (RELIGION OF). For discussion as to man's knowledge of God, *V. ABSOLUTE*. --[J. S.]

REMEMBRANCE, REMINISCENCE, RECOLLECTION (*reminiscor*, to remember; recalling of past experiences, whether voluntarily or involuntarily; *recolligo*, to gather together again).--Memory is knowledge of some former consciousness. *Reminiscence* is the act by which we endeavour to recall and reunite former states of consciousness. It is peculiar to man; while memory, as spontaneous, is shared by the brutes. "When we have a *reminiscence*," said Aristotle (*De Mem. et Reminiscencia*), "we reason to the effect that we formerly experienced some impression of such or such a kind, so that in having a *reminiscence* we syllogise."

"The same idea, when it again recurs without the operation of the like object on the external sensory, is *remembrance*; if it be sought after by the mind, and with pain and endeavour found and brought again in view, it is *recollection*; if it be held there long under attentive consideration, it is *contempla-*

tion" (Locke, *Essay on Human Understanding*, bk. ii. ch. xix. sec. 1).

"The various particulars which compose our stock of knowledge are *recalled* to our thoughts in one of two ways; sometimes they recur to us spontaneously, or at least without any interference on our part; in other cases they are recalled in consequence of an effort of our will. For the former operation of the mind we have no appropriate name in our language distinct from *Memory*. The latter, too, is often called by the same name, but is more properly distinguished by the word *recollection*" (Stewart, *Elements*, ch. vi. sec. 1).

The Platonic doctrine of *Reminiscence* was an affirmation that the knowledge of ideal truth was a recollection of what had been seen in a higher state. "They say that the soul of man is immortal, and at one time has an end, which they say is to die, and at another time is born again, but is never destroyed; . . . and having seen all things that there are, whether here or in Hades, has knowledge of them all, and it is no wonder she should be able to call to remembrance (*ἀναμνησθῆναι*) all that she ever knew about virtue, and about everything" (Plato's *Meno*, p. 81; see also the *Phædo*, p. 75).

Jowett says of the *Meno*:—"This dialogue contains the first intimation of the doctrine of reminiscence, and of the immortality of the soul. It may be observed that the fanciful notion of pre-existence is combined with a true view of the unity of knowledge and of the association of ideas" (Intro. to the *Meno*, Dialogue of Plato, i. 254).

REPRESENTATIVE.—*V.* KNOWLEDGE.

REPRODUCTIVE FACULTY.—*V.* CONSERVATIVE FACULTY.

RESEMBLANCE.—*V.* ASSOCIATION (LAWS OF).

RESENTMENT.—Antagonism of feeling directed against a person on account of some act done by him in violation of our own rights or the rights of others (*cf.* Butler, sermon viii.).

RESPECT.—*V.* REVERENCE.

RESPONSIBILITY.—Accountability for conduct in the case of an agent possessing knowledge of moral law, and power to

govern conduct in harmony with such law. This responsibility is manifested (1) in the relations of moral agents, (*a*) as moral law implies social obligations, (*b*) as personal contracts are made in harmony with moral law; (2) in the relations of moral agents to the Moral Governor, involving what is at once the primary and the ultimate aspect of answerableness for personal conduct (Aristotle's *Ethics*, iii. 5; Reid's *Active Powers*, essay iii. pt. iii. ch. vii.; Bradley's *Ethical Studies*, p. 5).

RESTRAINTS UPON ACTION.—Emotions natural to man; Wonder, Fear, Grief, under experience of which personal activity is checked, and may even be arrested or paralysed (Caldwell's *Handbook of Moral Philosophy*, p. 161).

RETENTION (*retineo*, to keep hold of).—The act of preserving in the mind, though out of consciousness, knowledge received.

“The power of *reproduction* (into consciousness) supposes a power of *retention* (out of consciousness). To this conservative power I confine exclusively the term Memory” (Hamilton, *Reid's Works*, p. 911).—*V. MEMORY.*

RETRIBUTIVE.—*V. PUNISHMENT.*

REVERENCE.—Kant's term for the true attitude of man towards Moral Law. It is *pure* reverence; not a passive feeling, but “an active emotion generated in the mind by an idea of reason” (*Metaphysic of Ethics*; Semple, p. 12).

RIGHT.—(1) *Adj.*, describes the quality of an action as in conformity with moral law; (2) *subst.*, the claim of a person upon others, consequent upon the equal subjection of all to moral law.—*V. RECTITUDE.*

“The word *right* has a very different meaning, according as it is applied to actions or to persons. A *right* action (*rectum*) is an action agreeable to our duty. But when we speak of the *rights of men* (*jus*), the word has a very different and a more artificial meaning. It is a term of art in law, and signifies all that a man may lawfully do, all that he may lawfully possess and use, and all that he may lawfully claim of any other person” (Reid's *Active Powers*, essay v. ch. iii.).

Writers in natural jurisprudence have given the name of *perfect rights* to the claims of strict justice, and that of *im-*

perfect rights to the claims of charity and humanity. Thus all the duties of humanity have imperfect *rights* corresponding to them, as those of strict justice have perfect rights" (Reid, *ib*).

"The adjective *right* has a much wider signification than the substantive *right*. Everything is *right* which is conformable to the supreme rule of human action; but that only is a *right* which, being conformable to the supreme rule, is realised in society and vested in a particular person" (Whewell's *Elements of Morality*, bk. i. sec. 84; see Bradley's *Ethical Studies*, note on "Rights and Duties," p. 187).

RULE.—A *rule* prescribes means to attain some end. A *law* enjoins something to be done, and is binding upon all to whom it is made known.

"Rectitude is a *law*, as well as a *rule* to us; it not only directs, but binds all, as far as it is perceived" (Price, *Rev. of Morals*, ch. vi.).

"A *rule*, in its proper signification, is an instrument by means of which we draw the shortest line from one point to another, which for this very reason is called a straight line. In a figurative and moral sense, a *rule* imports nothing else but a principle or maxim, which furnishes man with a sure and concise method of attaining to the end he proposes" (Burlamaqui, *Principles of Natural Law*, pt. 1. ch. v.).

Kant distinguishes between Hypothetical Imperatives and the Categorical Imperative. "An imperative commands either hypothetically or categorically. The former expresses that an action is necessary as a mean toward somewhat further; but the latter is such an imperative as represents an action to be in itself necessary" (*Metaph. of Ethics*, Semple, 3rd ed., p. 27). Kant distinguishes Rules of Art, and Dictates of Prudence from Laws (Commandments) of Morality.

SAINT-SIMONISM.—V. COMMUNISM.

SAMENESS.—(1) *Identity* (q.v.); (2) *likeness*. In a secondary sense it denotes great *similarity*, and in popular usage admits of degrees, as when we speak of two things being *nearly the same* (see Whately, *Logic*, app. i.).

SANCTION (*sancio*, to ratify or confirm), properly applied to the test of consequences as confirmatory of moral law. The

authority of the law belongs to it by its nature, sanction is distinct from the law—an accompaniment which is confirmatory.

Mr J. S. Mill has said:—"The internal sanction of duty, whatever our standard of duty may be, is one and the same—a feeling in our own mind, a pain, more or less intense, attendant on a violation of duty" (*Utilitarianism*, p. 41).

The consequences which naturally attend virtue and vice are the *sanction* of duty, or of doing what is right, as they are intended to encourage its discharge, and to deter from its breach. By Locke, Paley, and Bentham, the term *sanction*, or enforcement of obedience, is applied to reward as well as to punishment. Austin (*Province of Jurisprudence Determined*) confines it to the latter; because human laws only punish, and do not reward. Bain classifies sanctions as External and Internal (*Moral Science*, ch. ii.). See Fowler, *Progressive Morality*, p. 4.

SCEPTICISM (σκέπτομαι, to look about, so as to observe carefully). In harmony with the attitude, it indicates (1) indecision, the absence of a definite conclusion; (2) a denial of the adequacy of evidence to support a dogmatic conclusion.

The characteristic of philosophic scepticism is to come to no conclusion for or against—ἐποχή, holding off, or suspension of judgment, in this way seeking tranquillity—ἀταραξία. Scepticism is the opposite extreme from dogmatism. In philosophic character and tendency it is altogether different from doubt used as a philosophic instrument, as in the case of Descartes, with whom doubt was a defence against too easy assent, and a constant test of the conclusions being reached. Scepticism, on the other hand, distrusts the very instruments of knowing, and discredits the claims of evidence to warrant certainty. Absolute objective certainty being unattainable, Scepticism holds that, in the contradictions of the reason, truth is as much on one side as on the other—οὐδὲν μᾶλλον. It was first taught as a doctrine by Pyrrho, who flourished in Greece about 340 B.C.—hence sometimes called Pyrrhonism.

As a tendency, it existed in the teaching and spirit of the Sophists, especially in the maxim of Protagoras, "Man is the measure of all things." Of the *Sceptics*, strictly so called,

Ueberweg distinguishes three schools.—(1) Pyrrho and his followers; (2) the Middle Academy, or the second and third Academic Schools; (3) the Later Sceptics, who again made the teaching of Pyrrho their basis. Of these the first and the third were extreme, while the second, less radical, distinguished various degrees of probability.

Modern Scepticism is represented by Hume, who, in his *Treatise on Human Nature*, following out Berkeley's method, resolves Mind equally with Matter into mere Feeling.

Ueberweg's *History*, Greek, i. 91, 212; Modern, ii. 130; Schwegler's *History*, pp. 134 and 181, with p. 415; Zeller's *Stoics, Epicureans, and Sceptics*, pt. iv. p. 486. See Kant's references to Hume, *Critique of Pure Reason*, and *Prolegomena*, iii., Bax; *Life of Kant* by Stuckenberg, ch. viii.; Green's *General Introduction* to Hume's Works; Lotze, *Logic*, p. 414, Balfour's *Defence of Philosophic Doubt*; Mill, *Essays on Religion*, p. 120.

SCHEMATISM (σχῆμα, shape), is "the procedure of the understanding with schemata" The *schema* is "the formal and pure condition of sensibility," the image of the thing with which the imagination aids the understanding in its procedure; this is the *transcendental schema*. Schema is thus employed by Kant to express the manner in which the categories of Understanding are brought to bear, as "Principles," on the phenomena of sensuous perception. These two are, in their nature, "quite heterogeneous" For the application of the one to the other, therefore, there is required a *tertium quid*, "which on the one side is homogeneous with the *category*, and on the other with the phenomenon. . . . This *mediating* representation must be *pure* (without empirical content), yet must on the one side be *intellectual*, on the other *sensuous*. Such a representation is the *transcendental schema*" (Kant's *Crit. of Pure Reason*, Meiklejohn, pp. 107–113; Stirling, *Text-Book to Kant*, pp. 248–256).

Kant refers *Schematism*, like all other operations, to a distinct "faculty," that of the *transcendental* or *productive imagination*. While the synthesis of the Forms of Intuition is *sensuous*, and the synthesis of the Categories of Understanding is *intellectual*, the synthesis of Imagination is *figurative* (*synthesis speciosa*). It brings the unity of apperception to bear upon the universal

form of intuition, that of Time. The categories are the "rules" of its procedure; but in its actual operation they are not brought into consciousness. "This schematism . . . is an art hidden in the depths of the human soul, whose true modes of action we shall only with difficulty discover and unveil."

The Schema is not to be compared with the image or type; it is rather "a general receipt for a whole infinitude of types," *e.g.*, "no *image* could ever be equal to our conception of a *triangle in general*. For it could never attain to the generalness of the conception. . . . The schema of a triangle can exist nowhere else than in thought, and it indicates a rule of the synthesis of the imagination in regard to pure figures in space." It is, "as it were, a monogram of the pure imagination *à priori*."

SCHOLASTICISM, the name used to include the whole reasoning of the schoolmen, specially the philosophical discussions from the 9th century onwards to the 15th.

According to Diogenes Laertius, bk. v. 50, Theophrastus, the Peripatetic, in a letter to his pupil Phantias, called himself a Scholastic, — *σχολαστικόν*. *Scholasticus*, as a Latin word, was first used by Petronius. Quintilian subsequently applied it to the rhetoricians in his day; and we read in Jerome, that Serapion, having acquired great fame, received as a title of honour the surname *Scholasticus*. When the schools of the Middle Ages were opened, it was applied to those charged with the education of youth, and came to be the name for a scholar or learned man.

The phrase "Scholastic Philosophy" denotes a *period* rather than a *system* of philosophy. It is the philosophy that was taught in the schools during the Middle Ages, *i.e.*, from the commencement of the 9th to the close of the 15th or beginning of the 16th century. What has been called the Classic Age of the *scholastic philosophy* includes the 13th and 14th centuries. Philosophy, like all learning, was in the hands of the Church. Its activity was conditioned by the authority of the Church and of the Dogmas which the Church inculcated. Its method was that of the Aristotelian Logic, which had most attention,

and was taught by prelections on such of the works of Aristotle as were best known.

The first years of *scholastic philosophy* were marked by *authority*. In the 9th century Joannes Scotus Erigena attempted to assert the claims of reason. Two hundred years after, the first era was brought to a close by Abelard. The second is marked by Albertus Magnus, Thomas Aquinas, and Duns Scotus. Raymond Lully and Roger Bacon, followed by Occam and the Nominalists, represent the third and declining era. Ueberweg (*History*, i. 355) distinguishes two periods:—“(1) The commencement of Scholasticism, or the accommodation of the Aristotelian logic and of Neo-Platonic philosophy to the doctrine of the Church, from John Scotus Erigena to the Amalricans, or from the 9th till the beginning of the 13th century; (2) the complete development and widest extension of Scholasticism, or the combination of the Aristotelian philosophy, which had now become fully known, with the dogmas of the Church, from Alexander of Hales to the close of the Middle Ages.”

According to Cousin (*Œuvres inédites d'Abelard*, introd.) it has three epochs:—“(1) From the 11th century to the 13th, and the organisation of the university of Paris. This is the infancy of scholasticism. (2) From the 13th to the 15th century. This is the age of its manhood—when all the great universities of Europe and the great religious orders flourished. (3) From the 15th to the close of the 16th century. This is the period of its decay. And if from scholasticism you eliminate theology, it will be found as a philosophy to be the quarrel between Nominalism and Realism” (*q.v.*).

The taking of Constantinople by the Turks, the invention of printing, and the progress of the Reformation, with the revival of learning and the rising interest in physical science, put an end to the *scholastic philosophy*. Philosophy was no longer confined to the schools and to prelections. The press became a most extensive lecturer, and many embraced the opportunities offered of extending knowledge.

In addition to general histories of philosophy, see Roussclot, *Études sur la Philosophie dans le Moyen Age*, Paris, 1840–42;

Haureau, *De la Philosophie Scholastique*, Paris, 1850 ; Cousin, *Fragmens Philosophiques*, tom. iii., Paris, 1840 ; Schwegler's *History*, 8th ed., p. 144 ; Hampden's *Scholastic Philosophy*, Maurice's *Medieval Philosophy*.

SCIENCE (*scientia*, ἐπιστήμη), rationalised knowledge of ascertained facts. A higher knowledge explanatory of a lower, by reference to causes operating or laws regulating occurrences. It is identical in meaning with philosophy ; but, as matter of convenience, the word "science" has come to be applied to the philosophy of physical existence, including what are known as the "observational sciences" ; the word "philosophy" being restricted to the science of mental existence. Science in its widest application is the bringing of the manifold phenomena of nature to order and system by discovery of the hidden conditions of existence, as the reward of persistent investigation. Sometimes it also includes the investigation of mental phenomena: so "Mental" and "Moral" *Science*.

Hamilton (*Lects. on Logic*, lect. xxiv.) defines *science* as a "complement of cognitions, having, in point of form, the character of logical perfection, and, in point of matter, the character of real truth."

According to Lotze (*Microcosmus*, introd., p. viii., transl.), Science, as distinguished from Philosophy, tends to shun the great questions of human destiny.

Science and Art.—"In *science*, *scimus ut sciamus* ; in art, *scimus ut producamus*. And, therefore, *science* and art may be said to be investigations of truth : but one, *science*, inquires for the sake of knowledge ; the other, *art*, for the sake of production" (Karlsruhe, *Aids to Logic*).

"*Science* is a collection of truths ; art a body of rules, or directions for conduct. The language of *science* is, This is, or, This is not ; This does, or does not happen. The language of art is, Do this, Avoid that. *Science* takes cognisance of a *phenomenon*, and endeavours to discover its *law* ; art proposes to itself an *end*, and looks out for means to effect it" (J. S. Mill, *Essays on Political Economy*).—V. ART.

SCOTTISH PHILOSOPHY.—V. COMMON SENSE.

SECONDARY QUALITIES.—V. QUALITY, MATTER.

SECULARISM, the Latin word for *this-world-ism*, regulation of conduct by exclusive regard to things of this present life.

Its capital principles are :—(1) That attention to temporal things should take precedence of considerations relating to a future existence ; (2) that science is the providence of man, and that absolute spiritual dependency may be attended with material destruction ; (3) that there exist, independently of Revelation and religion, guarantees of morality in human nature, intelligence, and utility.

The aim of *secularism* is to aggrandise the present life. For eternity, it substitutes time ; for providence, science ; for fidelity to the Omniscient, usefulness to man. Thus it “ may be regarded as the theory of life, or conduct which flows from the theory of belief or knowledge that constitutes the substance of Positivism ” (Flint, *Anti-Theistic Theories*, p. 211). It does not imply Atheism, though that is frequently its accompaniment. As to the relation of Secularism to Religion, there is “ a fundamental difference of opinion among Secularists ” (see Flint, *ib.*, lect. vi.). In app. xxiii. he sketches the rise of Secularism in the writings of Jeremy Bentham, James Mill, Paine, Taylor, Carlile, Robert Owen, and others.

SECUNDUM QUID (τὸ καθ' ὃ) is opposed to *Secundum ipsum* (τὸ καθ' αὐτὸ) as the *relative* to the *non-relative* or the *limited* to the *unlimited*. Maurice illustrates *Secundum quid* by a passage from “ As you like it ” : “ In respect that it is of the country it is a good life, but in respect it is not of the court it is a vile life.” For the Fallacy *A dicto secundum quid ad dictum simpliciter*, see FALLACY.

SELECTION (Natural).—*V. EVOLUTION.*

SELF-CONSCIOUSNESS.—The knowledge which the mind has of itself in every form of experience. Each state is a subjective state—that is, known to the person as his own state. On the one side, it is the knowledge of the state as his state ; on the other, it is the knowledge of himself, as passing through a given experience.

This was regarded by Descartes as the primary indubitable fact. “ I think, therefore I am ; ” that is, “ I am thinking ; ”

this expresses the single fact. "Consciousness is that immediate knowledge which we have of our present thoughts and purposes, and in general of all the present operations of our minds" (Reid, *Intell. Powers*, i. 1). "Consciousness is the knowledge that I—that the Ego—exists in some determinate state" (Hamilton, *Metaph.*, i. 182, lect. xi.; see *Reid's Works*, note II). Kant names the act of self-consciousness "apperception." "The consciousness of self (apperception) is the simple representation of the Ego" But "the subject perceives itself . . . according to the manner in which the mind is internally affected" (*Critique*, Meiklejohn, p. 41; Stirling, p. 165). With Hegel, consciousness is thought in action. "Thought, regarded as an activity of the mind, may be described as the active universal." "Thought conceived as a subject is a thinker, and the subject existing as a thinker is simply denoted by the term I." "Since I am at the same time in all my sensations, conceptions, and states of consciousness, thought is everywhere present, and is a category that runs through all these modifications" (Hegel's *Logic*, Wallace, pp. 30, 32; Caird's *Hegel*, ch. viii. p. 151; Ferrier's *Metaph.*).

SELF-EVIDENCE.—Carrying the evidence of truth in itself. A self-evident proposition is one needing only to be understood to be accepted as true. This is the characteristic of necessary or universal truth.

SELF-INTEREST.—*V.* INTEREST.

SELFISHNESS "consists not in the indulging of this or that particular propensity, but in disregarding, for the sake of *any* kind of personal gratification or advantage, the rights or the feelings of other men." Self-love is the natural disposition, selfishness the unnatural.

SELF-LOVE.—A rational regard to one's own good. It is sometimes used in a general sense to denote all those principles of our nature which prompt us to seek our own good, in contrast with those principles which lead us to seek the good of others. It is used by Butler in two senses:—(1) As co-ordinate with Benevolence, *i.e.*, as a conscious principle of action; (2) as a settled disposition (*i.e.*, instinctive). This latter appears in the *Analogy of Religion*.

According to Hobbes, self-love is the basis of all action (see *Leviathan*).

“We have to distinguish self-love, the ‘general desire that every man hath of his own happiness’ or pleasure, from the particular affections, passions, and appetites directed to external objects, which are ‘necessarily presupposed’ in ‘the very idea of an interested pursuit,’ since there would be no pleasure for self-love to aim at, if there were no pre-existing desires directed towards objects other than pleasure, in the satisfaction of which pleasure consists” (Sidgwick’s *Outlines of History of Ethics*, p. 189).

Hutcheson maintains that kind affection is the essential characteristic of the virtuous agent who may also love himself, as a part of the whole system of rational and sentient beings (*Inquiry concerning Moral Good and Evil*, sec. 3).

The error of Hobbes and his followers lay in supposing that there is antagonism between *benevolence* and *self-love*.

In opposition to the views of Hobbes and the selfish school of philosophers, see Butler, *Sermons On Human Nature, On Compassion, &c.*, Hume, *Inquiry concerning Principles of Morals*, app. ii., Hutcheson, *Inquiry concerning Moral Good and Evil*, sec. 3; Mackintosh, *View of Ethical Philosophy*, p. 192.

SELF-PRESERVATION (Instinct of).—“Although some instincts are more powerful than others, and thus lead to corresponding actions, yet it is untenable that in man the social instincts (including the love of praise and fear of blame) possess greater strength, or have, through long habit, acquired greater strength than the instincts of self-preservation, hunger, lust, vengeance, &c. Why, then, does man regret, even though trying to banish such regret, that he has followed the one natural impulse rather than the other: and why does he further feel that he ought to regret his conduct? Man in this respect differs profoundly from the lower animals; man from the activity of his mental faculties cannot avoid reflection; but the instinct of self-preservation is not felt except in the presence of danger; and many a coward has thought himself brave until he has met his enemy face to face” (Darwin’s *Descent of Man*, pt. i. ch. iv. p. 112).

SELF-REALISATION.—The Hegelian formula of moral obligation. "Be a person, *i.e.*, realise the true self, not the mere private self." "I am morally realised, not until my personal self has utterly ceased to be my exclusive self, is no more a will which is outside others' wills, but finds in the world of others nothing but self. 'Realise yourself as an infinite whole,' means 'Realise yourself as the self-conscious member of an infinite whole, by realising that whole in yourself'" (Bradley, *Ethical Studies*, p. 73). "Hence that all willing is self-realisation is seen not to be in collision with morality (*ib.*, p. 77, *cf.* essay ii., *passim*; see Hegel, *Philosophie des Rechts*, sec. 36, Green, *Prolegomena to Ethics*, *passim*).

SENSATION.—The feeling in consciousness resulting from a single impression on any part of the sensitive organism. Sensation is the simplest element in consciousness. With this Mr J. S. Mill admits we must begin as the primordial fact.

"The capacity for receiving representations" (Stirling translates, "intimation") "(receptivity) through the mode in which we are affected by objects, is called *sensibility*" (Kant, *Critique*, Meiklejohn, p. 21). "That which in the phenomenon corresponds to the sensation I term its matter" (*ib.*).

As to the distinction between sensation proper and perception proper, see Hamilton, *Reid's Works*, note D*, p. 876.

Sensation and Perception.—*Sensation* properly expresses *that change in the state of the mind* which is produced by an impression upon an organ of sense (of which change we can conceive the mind to be conscious, without any knowledge of external objects): *perception*, on the other hand, expresses the *knowledge* or the *intimations* we obtain, by means of our *sensations*, concerning the qualities of matter; and consequently involves, in every instance, the notion of *externality* or *outness*, which it is necessary to exclude in order to seize the precise import of the word *sensation*.

Sensation has been employed to denote—

1. "The process of sensitive apprehension, both in its subjective and its objective relations"; like the Greek *æsthesis*.
2. "It was limited first in the Cartesian school, and there-

after in that of Reid, to the subjective phasis of our sensitive cognitions" (Hamilton, *Reid's Works*, note D, p. 877, note).

"A conscious presentation, if it refers exclusively to the subject, as a modification of his own state of being, is = *sensation*. The same, if it refers to an object, is = *Perception*" (Coleridge, *Church and State*, quoted by Thomson, *Laws of Thought*, 3rd ed., p. 96).

Rousseau distinguished *sensations* as *affectives*, or giving pleasure or pain; and *representatives*, or giving knowledge of objects external.

Paffe (*Sur la Sensibilité*) distinguishes the element *affectif* and the element *instructif*.

In like manner Reid regards *sensation* not only as a state of feeling, but a *sign* of that which occasions it.

"*Sensation* proper is not purely a passive state, but implies a certain amount of mental activity. It may be described, on the psychological side, as resulting directly from the attention which the mind gives to the affections of its own organism. . . . If the attention of the mind be absorbed in other things, no impulse, though it amount to the laceration of the nerves, can produce in us the slightest feeling" (Morell, *Psychology*). According to Reid and Hamilton, *Sensation* and *Perception* are always in the inverse ratio of one another (*cf.* Reid, *Intellectual Powers*, essay i. ch. i.; Sully, *Sensation and Intuition*).—V. PERCEPTION

SENSATIONALISM,—the theory which makes *sensation* the sole origin of human knowledge; and regards *sensibility* as the source from which all mental power is developed. Its formula is—*nihil est in intellectu, nisi prius fuerit in sensu*. Locke says:—"All ideas come from sensation or reflection." This is the type of theory to which the evolutionist is shut up, if he proposes to include mind with matter under his theory of existence. Its upholders are James Mill, J. S. Mill, Bain, Spencer. Its leading positions are these:—That *sensibility* is the common characteristic of life,—that organism is constructed on a common plan,—that *sensation* and *consciousness* are the same,—that *sensations* repeat themselves, so as to become familiar,—that recurring *sensations* become associated, and

thus afford the conditions of rational life, assuming the different aspect of intellectual, volitional, and emotional experience. Its perplexity lies in the contrast between *sensus* and *intellectus*,—in this before and after,—no thing in the intellect, unless it be first in the sensory. Leibnitz says,—*Nihil est in intellectu, &c. . . . nisi ipse intellectus*. Hamilton asks,—Can there be sensation without judgment? Kant,—Can there be sensory impressions without the forms of the understanding? Hegel,—Has sensation by itself any meaning?

SENSE, in psychology, (1) the faculty of sensitive apprehension, "five senses;" (2) its act, we have a sense of pain; (3) its organ,—the sense of sight, the eye.

SENSE (REFLEX), mental power analogous to that of the external senses, but concerned with the facts of consciousness, and therefore regarded as reflective or reflex. The phrase gained currency through the writings of Shaftesbury and Hutcheson, and belongs to an intermediate stage in the history of the philosophy of our country, when a transition was occurring from a sentimental theory of the knowledge of ethical distinctions to a rational theory. Hutcheson, sensible of the inadequacy of Locke's account of the origin of our ideas, maintained that we acquire ideas by means of certain powers of perception, which he called internal and *reflex senses*. We perceive the harmony of sound, and the beauty of colour, by means of faculties which operate reflexly, in consequence of some preceding perception. The moral faculty was regarded by him as a sense of this kind. Reflection, from which, according to Locke, we derive the simple ideas of the passions and affections of mind, was considered by Hutcheson as an *internal sense* or faculty, operating *directly*. But that faculty by which we perceive the beauty or deformity, the virtue or vice, of these passions and affections, was called by Hutcheson a *reflex, internal sense* (*Illustrations of the Moral Sense, Inquiry concerning Moral Good and Evil*, sec. 1; *Moral Philosophy*; Shaftesbury's *Inquiry concerning Virtue*, bk. i. pt. ii. sec. 3; *Characteristics*, vol. ii.).

SENSIBILITY (τὸ αἰσθητικόν), used in two senses, its ambiguity arising from that of the term *Feeling*. (1) Suscep-

tibility to impression, belonging to the extremity of the nerves of sensation. This stands in contrast with Sensation. This is the Kantian usage. (2) A general term to denote capacity of feeling, as distinguished from intellect and will. It includes the whole range of feelings, whether derived from contemplating outward and material objects, or internal relations and ideas, as well as desires, affections, passions. It also applies to our susceptibility to the sentiments of the sublime and beautiful, the moral sentiment and the religious sentiment; in short, every modification of feeling of which we are susceptible.

SENSIBLES, COMMON and PROPER (*sensibile*, that which is capable of affecting some sense, that which is the object of sense).

Aristotle distinguished *sensibles* into *common* and *proper* (*De Anima*, lib. ii. ch. vi., lib. iii. ch. i.; *De Sensu et Sensibili*, ch. i.). The *common*, those perceived by all or by a plurality of senses, were magnitude, figure, motion, rest, number. To these five, some of the schoolmen added place, distance, position, and continuity (*V. Hamilton, Reid's Works*, p. 124, note).

The *proper sensibles* are those objects of sense which are peculiar to one sense; as colour to the eye, sound to the ear, taste to the palate, and touch to the body (*V. Hamilton, Reid*, note D, p. 828).—*V. SENSUS COMMUNIS.*

Aristotle admitted, however (*De Anima*, lib. iii. ch. i.-iv.), that the *common sensibles* are not properly objects of sense; but merely con-comitants or con-sequents of the perception of the *proper sensibles*. This is noticed by Hutcheson (*Moral Philosophy*, bk. i. ch. i.), commended by Price (*Review*, ch. i. sec. 2), by Stewart (*Philosophical Essays*, pp. 31, 46, 551, 4th ed.), and by Royer Collard (*Œuvres de Reid*).

SENSORIUM (*αἰσθητήριον*).—The portion of the great nerve centre in which the sensations of the several senses are brought to unity. It has been regarded as the common meeting place of the various forms of sensibility coming from the special senses and the common sensory system.

Before scientific localisation was attempted, a variety of hypotheses had been ventured. According to Aristotle, it was

the heart; according to Descartes, the pineal gland; according to others the *corpus callosum*.

Sensorium signifies properly the *place* where the effects of sensory excitation are received. The eye, the ear, &c., are organs, but they are not *sensoria*. Sir Isaac Newton does not say that space is a *sensorium*, but that it is (by way of similitude), so to say, the *sensorium*, &c. (Clarke, *Second Reply to Leibnitz*, sec. 3) Leibnitz adopted (*Answer to the Second Reply of Clarke*, sec. 10) the explanation of Rudolphus Goelenius, who, in his *Lexicon Philosophicum*, says it was originally *Sensitorium*, an imitation of the Greek αἰσθητήριον, the organ of sensation (Aristotle, *De Animā*, ii. 9, 12; Lotze's *Metaphysic*, 518).

SENSORI-MOTOR.—The common name to include the two sides of the nerve-system, as combined in man and in all living organism. The one side consists of the sensory nerves, carrying impressions from the surface of the body to a nerve centre, which may be either a subordinate centre, such as the spinal cord, or the medulla oblongata, or the brain, the grand central organ. The other side consists of the motor nerves, carrying impulse from the nerve centre to the muscles, thus providing for muscular movement. The two sides constitute one system—the Sensori-Motor. When impulse, passing along a sensory line, passes over to a motor line, by which it is carried to the muscular system, the result is Sensori-motor activity (see Calderwood, *Mind and Brain*, ch. iii. and ix.; Carpenter, *Mental Physiology*, ch. ii.).

SENSORY. -- V. SENSIBILITY.

SENSUS COMMUNIS (κοινὴ αἴσθησις).—This phrase was employed by Aristotle and the Peripatetics "to denote the faculty in which the various reports of the several senses are reduced to the unity of a common apperception" (Hamilton, *Reid's Works*, p. 756). "When we reach the common sensibles, we find we have a *common* perception of them which enters into all the senses, not a perception incidentally united with some such sense. There is, therefore, no one special sense assigned to the common properties of objects of sensation" (Aristotle, *De Animā*, bk. iii. ch. i. sec. 7). "Each single sense . . . apprehends the object appropriated

to it. . . . But, further, we discriminate between what is white and what is sweet, and between each of the objects of sense in comparison with every other; and thus the question arises, What is it which enables us to apprehend this difference? It must be sense, because the qualities to be compared are objects of sense. . . . But it is clear that the separate senses cannot apart pass judgment on separate perceptions" (*ib.* iii. 2). This "discriminating faculty" (τὸ κρίνον) is therefore called the *Common Sense* (αἴσθησις κοινή) (see Edwin Wallace, *Psychology of Aristotle*).—*V.* COMMON SENSE, where find usage of the Scottish Philosophy, frequently named "the Philosophy of *Common Sense*."

SENTIENT, opposed to *Intelligent*,—capable of experiencing sensory impression by contact with external objects, or as the result of muscular movement.—*V.* SENSATION.

SENTIMENT.—(1) A form of feeling consequent on a judgment. Moral sentiments depend upon judgments as to actions, in view of the requirements of moral law. (2) Sometimes synonymous with opinion, which must be regarded as an improper use of the term. A sentiment implies an idea (or judgment), because the will is not moved nor the sensibility affected without knowing. But an idea or judgment does not infer feeling or *sentiment* (Buffier, *Logic*, ii. art. ix.).

"The word *sentiment* in the English language never, as I conceive, signifies mere feeling, but *judgment accompanied with feeling*. It was wont to signify opinion or judgment of any kind, but of late is appropriated to signify an opinion or judgment that strikes, and produces some agreeable or uneasy emotion. So we speak of *sentiments* of respect, of esteem, of gratitude; but I never heard the pain of the gout, or any other severe feeling, called a *sentiment*" (Reid, *Active Powers*, essay v. ch. vii.).

"Mr Hume sometimes employs (after the manner of the French metaphysicians) *sentiment* as synonymous with *feeling*, a use of the word quite unprecedented in our tongue" (Stewart, *Philosophical Essays*, Hamilton's ed., note E). For Macintosh's theory of conscience as the combination of moral sentiments, see *Dissertation*, his "Remarks on Butler."

"Have we discovered truth—we experience a *sentiment*. Have we done a good deed—we experience a *sentiment*. A *sentiment* is but the echo of reason, but is sometimes better heard than reason itself" (Cousin, *Œuvres*, tom. ii. p. 96).

"The word *sentiment*, agreeably to the use made of it by our best English writers, expresses, in my opinion, very happily those complex determinations of the mind which result from the co-operation of our rational powers and our moral feelings. We do not speak of a man's *sentiments* concerning a mechanical contrivance, or a physical hypothesis, or concerning any speculative question whatever, by which the feelings are not liable to be roused or the heart affected. This account of the meaning of the word corresponds, I think, exactly with the use made of it by Mr Smith in the title of his *Theory of Moral Sentiments*" (Stewart, *Philosophical Essays*, note E, Hamilton's ed.).

The *moral sentiments* include all those phases of mental sensibility experienced under action of our intelligence over questions of personal responsibility. These include self-esteem and esteem of others on the one side, and shame and remorse, and dislike of evil-doers, on the other. These sentiments depend for their rise on the exercise of intelligence; whether the sentimental experience is true to nature must depend on the validity of the judgment pronounced (*cf.* Spencer, *Data of Ethics*, p. 124; Fowler, *Progressive Morality*, p. 43; Calderwood's *Handbook of Moral Philosophy*, pt. iv. p. 203).

The *Sentimental Theory* of Morals, as opposed to the *Rational*, is that of Hume. According to this theory, qualities known to be useful or agreeable to the agent or others are pleasing to or approved by the spectator, and these sentiments of approval can in general be tested by the principle of utility.

SEQUENCE.—V. SUCCESSION.

SIGN (*signum*, a mark).—The definition of a sign is "that which represents anything to the cognitive faculty."

Signs are divided into *natural* and *conventional*. A *natural sign* has the power of signifying by its own nature, so that at all times, in all places, and with all people, it signifies the same thing, as smoke is the sign of fire. A *conventional sign*

supposes knowledge of what is signified in him to whom it is addressed. The connection here between the sign and the thing signified is *arbitrary*. This is the case with the system of signs which constitute Language; and therefore Berkeley, believing in the arbitrariness of natural connections, called them a *Language*.

In his philosophy Reid makes great use of the doctrine of *natural signs*. He arranges them in three classes,—(1) those whose connection with the things signified is established by nature, but discovered only by experience as natural *effects*, are *signs* of their *causes*. Hence philosophy is called an interpretation of nature, (2) those discovered to us by a natural principle without reasoning or experience, such as modulations of the voice, gestures of the body, and features of the face, which may be called natural language, in opposition to that which is spoken or written; (3) those which, though we never before had any notion or conception of the thing signified, do suggest it, and at once give us a conception and create a belief of it. In this way consciousness, in all its modifications, gives the conception and belief of a being who thinks—*Cogito ergo sum*.

“As the first class of natural *signs* is the foundation of true philosophy, so the second is the foundation of the fine arts or of taste, and the last is the foundation of common sense” (Reid, *Inquiry*, ch. v. sec. 3) (“Common sense” is here used in the technical meaning assigned by the early Scottish Philosophy.)

The doctrine or science of *signs* has been called *Sematology* (see Berkeley, *Dialogue on Divine Visual Language*; *Essay towards a New Theory of Vision*; *Theory of Vision Vindicated*; Adam Smith, *On the Formation of Language*; Taine, *On the Intelligence*).

SIMILARITY.—V. SAMENESS.

SIMILARS (Substitution of).—A phrase employed by Irons to express the nature of logical procedure. From his view of the *Equational* nature of Judgment (*v.* EQUATION), it follows that Inference is merely the substitution of similar quantities after the manner of Algebra (see his *Substitution of Similars*; also Venn, *Symbolic Logic*).

SINCERITY implies singleness of meaning and intention ; honesty, in so far as the word is applied to truthfulness. The Latin word *sincerum* signifies what is without mixture.

“*Sincerity* and *sincere* have a twofold meaning of great moral importance.’ *Sincerity* is often used to denote ‘mere reality of conviction’; that a man actually believes what he professes to believe. Sometimes, again, it is used to denote ‘unbiassed conviction, or, at least, an earnest endeavour to shake off all prejudices, and all undue influence of wishes and passions on the judgment, and to decide impartially” (Whately, *Logic*, app. i.).

SINGULAR.—*V. TERM.*

SLEEP,—repose of the bodily system, involving (1) closing of the organs of vision, so as to suspend sensory impression through the most active and most “intellectual” of the special senses; (2) cessation of voluntary muscular efforts; (3) recuperation of nerve energy in the nerve centre, by continuance of blood supply, without the usual expenditure of nerve energy (Carpenter’s *Mental Physiology*, p. 568; Calderwood’s *Mind and Brain*, p. 417; Lotze’s *Microcosmus*, i. 329; *Causation of Sleep*, Crippie). Is the mind always active in sleep? (Hamilton, *Metaph.*, lect. xvii. vol. i. p. 312–337).

SOCIALISM.—The theory which advocates community of property, on the ground of common interests, by abnegation of personal and individual rights, natural and acquired. In the various forms under which society has existed, private property, individual industry and enterprise, and the rights of marriage and of the family, have been recognised, as involved in the legitimate interpretation of moral law. Several schemes of social rearrangement have been proposed, in which these principles have been either abandoned or seriously modified. These schemes may be comprehended under the general term of *socialism*. The motto of them all is *solidarité*. They rest on a Humanitarian basis, insisting that the human race constitutes an organised whole, and that all efforts, as all results, should be for the common good. Rational antagonism to socialistic theory does not consist in denial of humanitarian positions, but in denial of the interpretation placed on them. This antagonism must be founded on moral law as ruling per-

sonal life, requiring personal effect, and supplying the security for personal possession.

SOCIETY (Desire of).—That the *desire of society* is natural to man is argued by Plato in the Second Book of his *Republic*. It is also hinted at in his dialogue entitled *Protagoras*. The argument is unfolded by Harris in his *Dialogue concerning Happiness*, sec. 12. Aristotle has said at the beginning of his *Politics*:—"The tendency to the social state is in all men by nature." The argument in favour of *society* from our being possessed of speech is insisted on by him (*Polit.*, lib. i. cap. ii.). Also by Cicero (*De Legibus*, lib. i. cap. ix.; *De Officiis*, lib. i. cap. xvi.; *De Nat. Deorum*, lib. ii. cap. lix.). So Seneca (*De Clem.*, i. 3). In ancient Ethics generally, especially in the period of their bloom, the individual is contemplated not as such, but as a member of the state. The prominence of this conception of the State is a proof of the conviction of the essentially social character of man.

The socialistic scheme was opposed by Locke, who said:—"God having designed man for a sociable creature, made him not only with an inclination, and under a necessity to have fellowship with those of his own kind, but furnished him also with language, which was to be the great instrument and common tie of *society*" (Locke, *Essay*, bk. iii. ch. i. sec. 1).

In modern times, Hobbes argued that man is naturally an enemy to his fellow-men, and that *society* is a device to defend men from the evils which they would bring on one another. Hutcheson wrote in opposition to Hobbes (*De Naturali Hominum Socialitate*, 1730; cf. Spencer, *Data of Ethics*, ch. viii.).

Society (Political, Capacity of).—Command and obedience, which are essential to government, are peculiar to mankind. Man is singular in commanding not only the inferior animals, but his own species. Hence men alone form a *political community*. It has been laid down by Aristotle and others, that this difference is owing to the exclusive possession of reason and speech by man, and to his power of discriminating between justice and injustice (*Politics*, i. 2). Animals, says Cicero, are unfitted for *political society*, not being "*rationis et orationis expertes*" (*De Offic.*, i. 16).

SOCIOLOGY, or Social Science, treats of the laws of the social development of the human race. In the hands of Spencer the science regards society as an organism evolving like other organisms, and sets before itself the task of ascertaining the laws of its evolution. It is led up to by *Biology* and *Psychology*, the one regarding man as an organism, the other as an intelligent being (see Herbert Spencer, *Principles of Sociology* and *Study of Sociology*, International Series).

SOLIDARITY.—A term used to express the organic unity of the human race—the fact that individuals are not to be regarded as isolated units, but as members of a whole, which acts and suffers in the action and suffering of each of its parts. It is because of this *solidarity* of humanity that “no man liveth to himself, and no man dieth to himself.”

SOLIPSISM.—*V.* EGOISM.

SOME.—In Logic *some* means *some*, *it may be all*, not, as in popular usage, *some, but not all*. It is the sign of *Particularity*, as *All* is of *Universality* (cf. Fowler, *Deductive Logic*, app.).

SOMNAMBULISM (*somnus*, sleep; *ambulo*, to walk), sleep-walking.---The state in which the sleeper prosecutes active exercise, with observation of external objects, and definite purpose in his efforts. In this state the eyes are commonly open, but bear no evidence of exercise in perception. Yet external objects are recognised, and are avoided or utilised as occasion requires (see Hamilton's *Metaphysics*, lect. xvii.; Carpenter, *Mental Physiology*, pp. 591–599; Calderwood, *Mind and Brain*, pp. 436–440; Lotze, *Microcosmus*, i. 342).

SOPHISM.---“*Sophism* is a false argument. This word is not usually applied to *mere errors* in reasoning; but only to those erroneous reasonings of the fallacy of which the person who maintains them is, in some degree, conscious; and which he endeavours to conceal from examination by subtilty, and by some ambiguity or other unfairness in the use of words” (Taylor, *Elements of Thought*). In this sense it is opposed to *Paralogism* (*q.v.*).

According to Aristotle, the *sophism* is a *sylllogismus contentious*, a syllogism framed not for enouncing or proving the

truth, but for disputation. It is constructed so as to seem to warrant the conclusion, which it does not, but is faulty either in form or argument (Trendelenburg, *Elementa Log. Aristotle*, sec 33). See Reid, *Account of Aristotle's Logic*, ch. v. sec. 3.
—V. FALLACY.

SOPHISTS.—The designation includes the philosophic teachers immediately preceding Socrates, and against whom Socrates largely exerted his influence. It has been disputed whether the Sophists can be properly regarded as a school of philosophy, for there were included under the common name those who were teachers of special departments of knowledge—grammarians and also rhetoricians, as well as those who devoted themselves specially to the study of human nature and the conditions of our knowledge. The most prominent of their number are Protagoras, Gorgias, Hippias, Prodicus (see Diog. Laert. *in loc.*, and the *Protagoras* of Plato; Zeller's *Pre-Socratic Philosophy*,—*Socrates and Socratic Schools*; Ritter's *History of Ancient Philosophy*; Hegel's *Geschichte der Philosophie*; Grote's *History of Greece*, viii. 474).

SORITES (σωρός, a heap).—An argument composed of an indeterminate number of propositions, so arranged that the predicate of the first becomes the subject of the second, the predicate of the second the subject of the third, and so on till the conclusion is reached, which unites the subject of the first with the predicate of the last, *e.g.*, A is B, B is C, C is D, D is E, therefore A is E.

This is the Direct or Common (Aristotelian) form of the Sorites. The Reversed form is also called the Goelenian, from Goelenius of Marburg, who first analysed it about the end of the 16th century. It differs from the common form in two respects—(1) its premisses are reversed; and (2) it begins with the premise containing the two terms which have the greatest extension, while the common form starts with the premise containing the terms which have the greatest comprehension. Thus—D is E, C is D, B is C, A is B, therefore A is E. These are otherwise called the *Progressive* and the *Regressive* Sorites.

The conditions of a valid Sorites of the first form are two—that no premiss be particular except the first, and (2) that no

premiss be negative except the last. These rules reversed are the conditions of the Regressive Sorites.

The Sorites may always be resolved into its component syllogisms, the number of these being equal to the number of premisses *minus* one.

SOUL (*ψυχή, anima*), (1) the principle of life; (2) the lower phase of mental life, distinguished from spirit; (3) the mind.

In the system of Plato, three forms or energies of *soul* were assigned to man. The *rational*, which had its seat in the head, and survived the dissolution of the body; the *irascible*, which had its seat in the heart, and was the spring of activity and movement; and the *appetitive* or *concupiscible*, which was the source of the grosser passions and physical instincts, and which died with the bodily organs with which it was united. A similar distinction between the forms or energies of the *soul* has been ascribed to Pythagoras, and traces of it are to be found in several of the philosophical systems of the East. On this tripartite division see an article on Plato's Psychology, by R. D. Archer Hind, in the *Journal of Philology*, vol. xi.

In the Second Book of the *De Animā*, Aristotle calls it "the Entelechy, or first form of an organised body which has potential life." The word *Ἐντελέχεια* is compounded of *ἐντελής*, perfect, (from *ἐν*, *τέλος*, an end) and *ἔχειν*, to have. Its use was revived by Leibnitz, who designated by it that which possesses in itself the principle of its own activity, and tends towards its end. According to his philosophy, the universe is made up of monads or forces, each active in itself, and tending by its activity to accomplish its proper end. In the philosophy of Aristotle, the word Entelechy, or first form, had a similar meaning, and denoted that which in virtue of an end constituted the essence of things, and gave movement to matter. When the *soul*, then, is called the Entelechy of an organised body possessed potentially of life, the meaning is that it is the end which realises itself in the life of body, and in whose realisation the meaning of body is manifested.

Aristotle distinguished several kinds of *soul*, viz., the *nutritive* or vegetative soul, by which plants and animals had growth and reproduction. The *sensitive*, which was the cause

of sensation and feeling. The *motive*, of locomotion. The *appetitive*, which was the source of desire and will; and the *rational* or *reasonable*, which was the seat of reason or intellect. These powers or energies of *soul* exist all in some beings; some of them only in other beings; and in some beings only one of them. That is to say, man possesses all; brutes possess some; plants one only. Thus his treatise, *περὶ ψυχῆς* (*De Anima*), is concerned with soul in all these manifestations. Aristotle does not distinguish between the provinces of Psychology and of Physiology. On the contrary, his conception of *ψυχή* is so wide, that the science which investigates its essential nature and manifestations, must concern itself with all the phenomena of Life, *i.e.*, must coincide with modern Biology as a department of Natural Philosophy (see Wallace, *Psychology of Aristotle*, introd., ch. ii.).

Among modern philosophers in Germany, a distinction is taken between *ψυχή* (Seele) and *πνεῦμα* (Geist), or *soul* and *spirit*. According to some the *soul* is the inferior part of our intellectual nature; the *spirit* is that part of our nature which tends to the purely rational, the lofty, and divine. Reid uses *soul* as synonymous with *mind*, and defines thus (*Intell. Powers*, essay, i. ch. i.). "By the mind of a man, we understand that in him which thinks, remembers, reasons, wills. . . . We are conscious that we think, and that we have a variety of thoughts of different kinds—such as seeing, hearing, remembering, deliberating, resolving, loving, hating, and many other kinds of thought—all which we are taught by nature to attribute to one internal principle; and *this principle of thought we call the mind or soul of a man.*"

In psychological inquiries the term *mind* is commonly employed to denote that by which we feel, know, will, and reason—in one word, the principle of thought. We know this inward principle as manifested through a system of bodily organisation with which it is united, and by which it is in many ways affected. We need, therefore, carefully to distinguish experience, for which we are dependent on the body, from that which is to be attributed to the mind itself; activity originating in the body, from that originating in the mind;

and, most difficult of all, we must ascertain what bodily action is an accompaniment or condition of mental activity, though such physical action may be quite beyond the testimony of consciousness. This last makes it needful as matter of philosophy to combine the independent results of physiology and psychology.

In philosophic usage "mind" represents the spiritual principle,—the power which originates rational exercise—which receives and interprets all impression passing into consciousness: "body" represents all that belongs to human organism, and is interpreted by external observation, under the conditions of chemical and mechanical law. According to earlier usage "soul" was taken as the ordinary expression for "mind," and this earlier use lingers still in the application of this term when reference is made to continuity of being beyond the present; it is invariably "the immortality of the soul." "The thinking principle is something different from the bodily organism, and when we wish to signalise its peculiar nature and destiny, we call it *soul* or *spirit*" (Reid).

Anima, which is common to man and brutes, is life; whilst *Animus* is the rational nature.

Ψυχή, soul, when considered separately, signifies the principle of life; Νοῦς, mind, the principle of intelligence. Or, according to Plutarch, *soul* is the cause and beginning of motion, and *mind* of order and harmony with respect to motion. Together, they signify an intelligent soul (ἐννοὺς ψυχή), which is sometimes called a rational soul (ψυχή λογική). Hence, when the nature of the soul is not in question, the word ψυχή is used to express both (Morgan, *On the Trinity of Plato*).

SOUL OF THE WORLD.—V. ANIMA MUNDI.

SPACE (*spatium*).—(1) The place occupied by extended objects, or the relation of such objects to each other; (2) the conception which the mind has *a priori* of such place or relation, constituting the common form under which all extended existence is known.

Locke attempted to show (*Essay on Human Understanding*, bk. ii. ch. iv.) that we acquire the idea of *space* by sensation, especially by the senses of touch and sight.

"According to Leibnitz, *space* is nothing but the order of things co-existing, as time is the order of things successive."

"According to Kant, *space* is a subjective condition of the sensibility, the form of all external phenomena; and as the sensibility is necessarily anterior in the subject to all real perception, it follows that the form of all these phenomena is in the mind *à priori*. There can, then, be no question about *space* or extension but in a human or subjective point of view. It may well be said of all things, in so far as they appear existing without us, that they are enclosed in *space*, but not that *space* encloses things absolutely, seen or not seen, and by any subject whatsoever" (Willm., *Hist. de la Phil. Allemande*).

Kant presents his main positions in these words:—"By means of the external sense (a property of mind) we represent to ourselves objects as without us, and these all in space. Therein alone are their shape, dimensions, and relations to each other determined or determinable." . . . "Space is a necessary representation *à priori*, which serves for the foundation of all external intuitions." . . . "Space does not represent any property of objects as things in themselves, nor does it represent them in their relations to each other." . . . "Space is nothing else than the *form* of all phenomena of the external sense, that is, the subjective condition of the sensibility, under which alone external intuition is possible" (*Critique of Pure Reason*, Meiklejohn, pp. 23-26).

"Perhaps," says Reid (*Intellectual Powers*, essay ii. ch. xix.), "we may apply to it what the Peripatetics said of their first matter, that whatever it is, it is potentially only, not actually." According to Reid, "*space* is not so properly an object of sense as a *necessary* concomitant of the objects of sight and touch" (*Intellectual Powers*, essay ii. ch. xix.). It is when we see or touch a body that we get the idea of *space*; but the idea is not furnished by sense—it is a conception, *à priori*, of the reason. Experience furnishes the occasion, but the mind rises to the conception by its native energy. This view has been supported by Cousin (*Cours d'Histoire de la Philosophie au xviii. Siècle*, 2 tom. 17 leçon); and by Royer Collard, in Jouffroy's

Œuvres du Reid, tom. iii. fragmen 4, p. 424; tom. iv. fragmen 9, p. 338.

Space, as containing all things, was by Philo and others identified with the Infinite. Newton maintained that God by existing constitutes time and space "*Non est duratio vel spatium sed durat et adest, et existendo semper et ubique, spatium et durationem constituit.*" Clarke maintained that *space* is an attribute or property of the Infinite Deity. As *space* is a necessary conception, and is conceived of as infinite, Clarke inferred the existence of an infinite substance, to which this quality belongs (see his *Being and Attributes of God*, with Butler's *Letters* to him, and the *Answers*).

See Hamilton, *Metaph.*, lect. xxiv., ii. 114, 191; Spencer, *First Principles*, pt. II. ch. iii.; Shadworth Hodgson, *Time and Space*, p. 87; Lotze, *Metaph.*, p. 285.

SPECIES (from the old verb, *specio*, to see).—(1) In *Logic* in the process of *classification* (*q.v.*), the first step is the formation of a *species*. A *species* is a group of individuals agreeing in some common character, and designated by a common name. When two or more *species* are brought together in the same way, they are called a *genus*.—V. PREDICABLES.

(2) In *biological science*, *species* is founded on form and structure, both external and internal. The principal characteristic of *species* in animals and vegetables, is the power to produce beings like themselves, who are also productive. A *species* may be modified by external influences; and thus give rise to races or varieties.

Darwin has propounded the theory that these variations are such as to imply *origin of species*; and that in this way the whole system of organised existence in all its varieties can be scientifically accounted for under a theory of evolution, if only one or two primordial forms are granted as affording a start. In support of this theory geology and biology present a large mass of evidence.

Towards a discussion of the theory a clear, constant definition of "species" is required. For this see Lyell's *Geology*, ch. xxxvii.

"Certainly no clear line of demarcation has as yet been drawn between species and sub-species,—that is, the forms

which in the opinion of some naturalists come very near to, but do not quite arrive at, the rank of species; or again, between sub-species and well-marked varieties, or between lesser varieties and individual differences. These differences blend into each other by an insensible series: and a series impresses the mind with the idea of an actual passage" (Darwin's *Origin of Species*, p. 42).

(3) **Species in Perception.**—In the history of the doctrine of external perception, "species" has been employed to signify images or representations.

It was maintained that external objects send forth *species* or *images* of themselves, which, making an impression on the bodily organs, next imprinted themselves on the mind and issued in knowledge. This doctrine originated with Democritus, who held that the atoms send forth effluxes, which produce images (εἰδωλα) in us. It was adopted by the Epicureans, and revived during the Middle Ages. For the various forms under which it has been held see Reid, *Intellectual Powers*, essay ii. ch. viii., with notes by Hamilton, and note D.

SPECIFICATION (The Principle of), is a principle of Differentiation, or Heterogeneity, implying that beings the most like or homogeneous disagree or are heterogeneous in some respect. It is the principle of variety or difference.

The Process of Logical Specification "is the counterpart of *generalisation*. In it we begin with the most extensive class, and descend, step by step, till we reach the lowest. In so doing we are thinking *out* objects, and thinking *in* attributes. In generalisation we think *in* objects and think *out* attributes" (Spalding, *Logic*, p. 15).

SPECULATION (*speculator*, to regard attentively),—rational exercise, contemplating purely intellectual ends, which, transcending observation and experience, seeks the solution of the higher problems of being by use of the principles of the understanding. "Speculative" is at times employed as equivalent to intellectual.

Speculative is opposed (1) to *practical*, (2) to *experimental* or *inductive*. The *speculative* part of philosophy is metaphysics; that which carries us into a region transcending experience.

SPIRIT.—V. SOUL.**SPIRITUALISTIC (FRENCH) PHILOSOPHY.**

(*spiritus*, spirit).—Applied to the French school, of which the chief members are Royer-Collard, Maine de Biran, Cousin, and Jouffroy. This school in France maintained, against the sensationalist school, that the self-conscious being affords the standpoint for a true philosophy of being; that material existence has no real affinity with spirit; and that the true ends of philosophy are to be reached by interpretation of the higher characteristics of human life (see Ueberweg, *History of Philosophy*, vol. ii. pp. 339, ff.).

SPONTANEITY.—(1) The characteristic of an act springing from the single and immediate operation of the laws of exercise belonging to a mental power, without design or purpose of the agent. We have examples of spontaneity in the unexpected play of memory, or in the rise of pity at sight of suffering. Spontaneity thus stands contrasted with uniform action of fixed law in the physical world, and with voluntary activity in the spiritual.

(2) Action originated by the choice of the agent, apart from inducement or entreaty of others.

(3) Kant attributes *spontaneity* to Understanding, as opposed to the *receptivity* of sense. "We apply the term *sensibility* to the receptivity of the mind for impressions, in so far as it is in some way affected, and, on the other hand, we call the faculty of spontaneously producing representations, or the *spontaneity* of cognition, *understanding* (*Critique of Pure Reason*, p. 45, Meiklejohn's transl.).

Leibnitz (*Opera*, tom. i. p. 459) explains "*spontaneity* to mean the true and real dependence of our actions on ourselves."

STAGES (Law of the Three).—V. POSITIVISM.

STANDARD OF VIRTUE.—A *standard* is something set up by which to measure the quantity or quality of some other thing. Virtue includes all the true excellencies of moral character. The standard of Virtue is—(1) primarily, moral law; (2) proximately, the Divine Will; (3) ultimately, the moral perfection of the Deity.—V. CRITERION.

STATE OF MIND,—(1) employed by Scottish philosophers to describe each successive form of our experience, however complex; (2) more frequently the passive character of mental phenomena. “The term *state* has, more especially of late years, and principally by Necessitarian philosophers, been applied to all modifications of mind indifferently” (Hamilton, *Reid's Works*, p. 85, note). Reid, on the other hand, says (*Correspondence*, p. 85) —“The reason why madness, idiotism, &c., are called *states* of mind, while its acts and operations are not, is because mankind have always conceived the mind to be passive in the former and active in the latter.”

Since the days of Reid and Stewart a change has passed over the language of Scottish psychology. Instead of speaking of the mind as *operating*, or as *acting*, or as *energising*, Brown is accustomed rather to speak of it as exhibiting phenomena, and as passing through, or existing in, different *states*. This phraseology has been accepted by many other writers. It implies here a condition of experience.

The phrase “*manifestations of mind*” would touch less upon the question of its activity. But in the language of Reid (*Intellectual Powers*, essay i. ch. i.)—“The mind is, from its very nature, a living and active being. Everything we know of it implies life and active energy; and the reason why all its modes of thinking are called its operations is, that in all or in most of them, it is not merely passive, as body is, but is really and properly active.”

STATE (The).—The political society. The science of its conditions is called *Politics*, or *Political Philosophy*. In ancient philosophy the distinction between individual and social life is not clearly recognised. The individual is in general regarded as a member of the state, *e.g.*, Plato, in the *Republic*, investigates the nature of Virtue as it appears “writ large” in the life of the state. Aristotle was the first definitely to mark the distinction, laying the foundation of political philosophy proper in his *Politics*, as of Ethics proper in his *Ethics*.

STATISTICS. — “The observation, registration, and arrangement of those facts in politics which admit of being reduced to a numerical expression has been, of late years,

made the subject of a distinct science, and comprehended under the designation of *statistics*. Both the name and the separate treatment of the subject were due to Achenwall, who died in 1772. Upon the nature and province of the science of *statistics*, see the Introduction to the *Journal of the London Statistical Society*, i., 1839. This science, it is there remarked, does not discuss causes, nor reason upon probable effects; it seeks only to collect, arrange, and compare that class of facts which *alone* can form the basis of correct conclusions with respect to social and political government. . . . Its peculiarity is that it proceeds wholly by the accumulation and comparison of facts, and does not admit of any kind of speculation. . . . The statist commonly prefers to employ figures and tabular exhibitions" (Sir G. C. Lewis, *Method of Observance in Politics*).

STIMULUS.—By *stimulus* in Psychology "is meant strictly an external agent (as material pressure) applied to a sense organ (*e.g.*, the hand) which it is capable of exciting to activity. The word may be extended so as to include all excitants of mental activity" (Sully, *Outlines of Psychology*, p. 35, note).

STOICS (from *στοὰ*, a porch).—Zeno opened a school at Athens, in the "variegated porch," so called from the paintings of Polygnotus, with which it was adorned, whence his adherents were called *Stoics*, *i.e.*, "philosophers of the porch." Of his disciples the most important were Cleanthes, Chrysippus, and Panetius. Like Epicureanism, Stoicism found a favourable reception among the eclectic philosophers of Rome, of whom the chief were Seneca, Epictetus, and Marcus Aurelius Antoninus. The interest of the Stoics in philosophy was practical, rather than speculative. They held that all knowledge arises from sense-perception; but with this they believed in "common ideas" or "anticipations" (*q.v.*) (*κοινὰ ἔννοιαι* or *προλήψεις*). In Physics they were pantheistic, identifying God with the universe. The "rational germs" of all things (*λόγοι σπερματικοὶ*) were in God. The Divine government of the world was of the nature of Fate (*εἰμαρμένη*) which they conceived religiously as Providence (*πρόνοια*).

The Stoic philosophy was in its main features ethical. Its

ethical formula was *ὁμολογουμένως τῇ φύσει ζῆν*,—"live agreeably to nature," and its interpretation of "nature" carried in it the rule that intelligence governs, and that feelings should be brought into complete subjection to it. This interpretation followed in its earlier stages on the lines of the Aristotelic discussion concerning "the proper work of man," and thence diverged to an extreme, which required the suppression of desire, and the subordination of the human will to the recognised order of things in the universe. The practical effect of this has given currency to the popular phrase "Stoic indifference" (Diogenes Laertius, *Zeno*; Epictetus and Marcus Aurelius, transl. by Long (Bohn's Series); Zeller, *History of Greek Philosophy*, Stoics, Epicureans, and Sceptics; Ueberweg, *History of Philosophy*, Eng. transl., vol. i. pp. 185-200; Schwegler, *History of Philosophy*, pp. 123-131).

SUBALTERN.—In logical classification (*q.v.*) the intermediate genera and species between the *Summum Genus* and the *Infima Species* are called *Subaltern*.—*V.* **PREDICABLES.**

SUBCONSCIOUS —*V.* **PERCEPTION, OBSCURE PERCEPTION.**

SUBJECT.—(1) That about which a remark is made, or of which a discourse treats, bringing many things under a common head; (2) the mind, regarded as the thinking power, in contrast with the object, that about which it thinks, and which may exist apart from the mind.

With Aristotle *ὑποκείμενον* signified the *subject* of a proposition, and also substance. The Latins translated it *subjectum*. In Greek object is *ἀντικείμενον*, translated *oppositum*. In the Middle Ages *subject* meant *substance*, and has this sense in Descartes and Spinoza; sometimes also in Reid. *Subjective* is used by William of Occam to denote that which exists independently of mind, *objective* that which the mind feigns. This shows what is meant by *realitas objectiva* in Descartes (*Med.* 3) (see **OBJECTIVE**). Kant and Fichte have inverted the meanings: *subject* is the mind which knows—*object* that which is known. *Subjective* the varying conditions of the knowing mind—*objective* that which is in the constant nature of the thing known (Trendlenburg, *Notes to Aristotle's Logic*).

"We frequently meet," says Reid, "with a distinction be-

tween things *in the mind* and things *external* to the mind. The powers, faculties, and operations of the mind are things in the mind. Everything is said to be in the mind, of which the mind is the *subject*. . . . Excepting the mind itself and things in the mind, all other things are said to be external" (*Intellectual Powers*, essay 1. ch. i.).

The distinction thus made between things in the mind and things external to the mind, is equivalent to that otherwise expressed by the *Ego* and the *non-Ego*, or *Self* and *not-Self*. The mind is the *Ego*. "All other things, called by Reid external," constitute the *non-Ego*.

"In the philosophy of mind, *subjective* denotes what is to be referred to the thinking subject, the *Ego*; *objective*, what belongs to the object of thought, the *non-Ego*" (Hamilton, *Discussions*, p. 5, note).

"The *subject* is properly *id in quo*; the *object*, *id circa quod*. Hence, in psychological language, the *subject*, absolutely, is the mind that knows or thinks, *i.e.*, the mind considered as the *subject* of knowledge or thought—the *object*, that which is known or thought about. The adjectives *subjective* and *objective* are convenient, if not indispensable expressions" (Hamilton, *Reid's Works*, p. 221, note).

"All knowledge is a relation, a relation between that which knows (in scholastic language, the *subject* in which knowledge inheres) and that which is known (in scholastic language, the *object* about which knowledge is conversant); and the contents of every act of knowledge are made up of elements, and regulated by laws, proceeding partly from its *object* and partly from its *subject*. Now, philosophy proper is principally and primarily the *science of knowledge*--its first and most important problem being to determine, What can we know? that is, what are the conditions of our knowing, whether these lie in the nature of the *object*, or in the nature of the *subject* of knowledge.

"But philosophy being the science of knowledge; and the science of knowledge supposing, in its most fundamental and thorough-going analysis, the distinction of the *subject* and *object* of knowledge; it is evident that to philosophy the *subject of knowledge* would be, by pre-eminence, *the subject*, and the *object*

of knowledge, by pre-eminence, *the object*. It was therefore natural that the *object* and the *objective*, the *subject* and the *subjective*, should be employed by philosophers as simple terms, compendiously to denote the grand discrimination, about which philosophy was constantly employed, and which no others could be found so precisely and promptly to express" (Hamilton's *Reid*, p. 808, note B).—V. OBJECT.

SUBJECTIVE,—(1) belonging to the thinking subject, thus applicable to all mental phenomena; (2) having its source in the mind, thus distinguishing certain phenomena of consciousness as original to mind from others having their origin in the sensory system, and which must be accounted for by reference to external objects.

Kant's task in the *Critique of Pure Reason* is to discriminate between the *Subjective* and the *Objective* in knowledge. His finding is that the object, so far as it is known, depends for its constitution upon the constitution of the knowing subject (*cf.* Lotze, *Logic*, p. 11, Bosanquet's transl.).—V. OBJECTIVE.

For *Subjective* as applied to *Idealism*.—V. IDEALISM.

SUBLIME (The).—A sense of grandeur differs from the sense of the beautiful, though closely allied to it. Beauty charms, sublimity overawes, being often accompanied with a feeling resembling fear, while beauty rather attracts and draws us towards it.

There is a *sublime* in nature, as in the ocean or the thunder; in moral action, as in deeds of daring and self-denial; and in art, as in statuary and painting, by which the *sublime* in nature and in moral character is represented and idealised.

Kant has analysed our feelings of sublimity and beauty in his *Critique of Judgment*; Cousin, *The True, the Beautiful, and the Good*; Burke, *On the Sublime and Beautiful*; Addison, *Spectator*, vol. vi.—V. BEAUTIFUL, PICTURESQUE.

SUBORDINATE.—In logical classification, the several genera and species are termed respectively *Subordinate* and *Superordinate*. Each is, in relation to those above it, *subordinate*; in relation to those below it, *superordinate*.

SUBSTANCE, the existence to which qualities belong; the substratum. Often confounded with Essence.

It may be derived from *subsistens* (*ens per se subsistens*), that which subsists of or by itself; or from *substans* (*id quod substat*), that which lies under qualities—the ὑποκείμενον of the Greeks. But in Greek, substance is denoted by οὐσία, that which truly is, or the essence. It is opposed to *accident*, of which Aristotle has said (*Metaph.*, lib. vii.) that you can scarcely predicate of it that it is anything. Essence is sometimes distinguished from substance, as by Augustine:—“*Sicut ab eo quod est esse, appellatur essentia; ita ab eo quod est subsistere, substantiam dicimus*” (*De Trinitate*, bk. vii. ch. iv.). Locke prefers the derivation from *substando*. He says (*Essay* ii. ch. xxiii. sec. 2).—“The idea then we have, to which we give the general name *substance*, being nothing but the supposed but unknown support of these qualities we find existing, which we imagine cannot subsist, *sine re substante*, without something to support them, we call that support *substantia*; which, according to the true import of the word, is, in plain English, standing under or upholding.”

Substance (οὐσία) is the first of Aristotle's ten categories. It is “the first, chief, and most general affirmation, which is neither predicated of any subject, nor is in anything underlying it, *e.g.*, a man or a horse” (*Categories*, 5, 2a, 11). Aristotle's conception of Substance is that of the *essence* of individual things, τὸ τί ἦν εἶναι, which is realised or manifested in the concrete unity of form and matter (τὸ σύνολον) (see *Metaph.*, Z. 11, 1037a, 29). Substance is, however, otherwise defined by him as the *underlying* or *substratum* (τὸ ὑποκείμενον) (*Metaph.*, Z. 13, 1038b, 2).

The conception of *Substance* is of great historical importance in modern philosophy. Descartes conceived the universe as consisting of two substances—*res cogitans* and *res extensa*. Spinoza resolved these into *attributes* of God, the *unica Substantia*. His definition of *Substance* is that which is in itself, and is conceived through itself. Locke returned to the Cartesian doctrine of two substances—the material and the thinking substance, which he conceived as *substrata*. Berkeley, criticising Locke's view of *Material substance*, urged the superfluity and the contradictoriness of supposing any such “support” of

qualities, which, being sensations, required no other "support" than the mind which perceived them. Hume extended this criticism to *Spiritual substance*, which he resolved, equally with matter, into a "bundle of sensations." To this negative criticism of the notion of Substance there were two replies—that of Kant, and that of the Scottish Philosophy. Kant, admitting its validity, as against the notion of Substance as *Substratum* or support of qualities, showed its necessity as a category of thought, providing for the unity of the qualities themselves. In short, he proved its necessity for experience, as one of those categories without which experience or knowledge of objects, as objects, would be impossible. The Scottish philosophers, on the other hand, reasserted the twofold Substance of Descartes and Locke, conceiving both the Subject-in-itself and the Object-in-itself, as Substances or Substrata of the qualities manifested by them. They returned, in short, to the doctrine of a *Spiritual* and *Material* substance.

SUBSTRATUM.—V. SUBSTANCE

SUBSUMPTION (*sub*, under; *sumo*, to take).—To *subsume* is to place any one cognition under another as belonging to it, as "all horses are animals." The minor premiss is a *subsumption* under the major.

SUCCESSION, a following in recognised order or relation. "By reflecting on the appearance of various ideas, one after another in our minds, we get the idea of *succession*" (Locke, *Essay*, bk. ii. ch. xiv. sec. 3). He traces our notion of *duration* of time to the same origin, confounding *succession* and *duration*. According to Kant, Cousin, and others, the notion of time is logically antecedent and necessary to the notion of *succession*. Events take place in time, as bodies exist in space. In the philosophy of Kant, Time is not an empirical notion, but, like space, an *à priori* form of the sensibility. *Succession* is, in the terminology of Kant, the *principle* of experience corresponding to the *Category* of *Causality*, *i.e.*, it is the category of Causality schematised. Succession of phenomena in time implies their connection as cause and effect. "Time is not an empirical conception. . . . It is a necessary representation, lying at the foundation of all our intuitions. . . . It is

a pure form of the sensuous intuition" (*Critique of Pure Reason*, Meiklejohn, pp. 28, 29).

SUFFICIENT REASON (Doctrine of).—"Of the principle of the *sufficient reason*, the following account is given by Leibnitz in his controversial correspondence with Clarke:—"The great foundation of mathematics is the principle of *contradiction* or *identity*, that is, that a proposition cannot be true and false at the same time. But in order to proceed from mathematics to natural philosophy, another principle is requisite (as I have observed in my *Theodicæa*), I mean the principle of the *sufficient reason*, or, in other words, that nothing happens without a *reason* why it should be so, rather than otherwise. And, accordingly, Archimedes was obliged, in his book *De Equilibrio*, to take for granted, that if there be a balance in which everything is alike on both sides, and if equal weights are hung on the two ends of that balance, the whole will be at rest. It is because no *reason* can be given why one side should weigh down rather than the other. Now, by this single principle of the *sufficient reason* may be demonstrated the being of a God, and all the other parts of metaphysics or natural theology; and even, in some measure, those physical truths that are independent of mathematics, such as the dynamical principles, or the principles of forces" (see Reid, *Active Powers*, essay iv. ch. ix.; Hamilton's *Discussions*, p. 603). — **V. REASON** (DETERMINING).

The principle of *sufficient reason* as a law of thought is stated by logicians thus:—"Every judgment we accept must rest upon a sufficient ground or reason."

Thomson, *Outline of Laws of Thought*, 3rd ed., p. 281. But according to Mansel (*Prolegom. Log.*, 2nd ed., p. 229), "The principle of *sufficient reason* is not a law of thought, but only a statement of the necessity of some law or other."

SUGGESTION (*suggero*, to bear or place under, to prompt).--Contribution to thought, either (1) spontaneously from within, or (2) by communication from without. Under this term Reid includes our recognition of First Principles (*Works*, Hamilton, p. 111; *Inquiry*, ch. i. sec. 7).

"It is the received doctrine of philosophers, that our

notions of relations can only be got by comparing the related ideas: but it is not by having first the notions of mind and sensation, and then comparing them together, that we perceive the one to have the relation of a subject or substratum, and the other that of an act or operation. on the contrary, one of the related things, viz., sensation, *suggests* to us both the correlate and the relation.

"I beg leave to make use of the word *suggestion*, because I know not one more proper, to express a power of the mind, which seems entirely to have escaped the notice of philosophers, and to which we owe many of our simple notions, which are neither impressions nor ideas, as well as many original principles of belief" (Reid, *Inquiry*, ch. ii. sec. 7).

Stewart has expressed surprise that Reid should have apologised for introducing a word which had already been employed by Berkeley, to denote those intimations which are the results of experience and habit.

With Berkeley, *Suggestion* is equivalent to *Association* (q.v.). Brown uses the term in the same sense. He calls judgment *relative suggestion*. Hutcheson says:—"Sensus est internus qui suggerit præcipue intellectiones puras; quæ conscientia, aut reflectendi vis dicitur" (*Log. Compend.*, cap. i). Consciousness does not give the new ideas, but only affords the occasion on which these ideas are suggested. It is when we are conscious of certain things or reflect on some subject, that a suggestion arises.

SUICIDE (*sui* and *cædes*, self-murder), the voluntary taking away of one's own life. The Stoics vindicated this when the pains and inconveniences of our lot exceeded its enjoyments and advantages. It is contrary to one of the strongest instincts of our nature, and at variance with the submission which we owe to God, and with the conception of duty.

Aristotle, *N. Ethics*, lib. iii. cap. vii.; lib. v. cap. xi.; Madame de Stael, *Reflections sur le Suicide*; Stœudlin, *Hist. des Opinions et des Doctrines sur le Suicide*, Gotting. 1824; Tissot, *Manie du Suicide*; Adams, *On Self-Murder*; Donne, *Biathanatos*; Morselli, *Suicide*, International Scientific Series.

SUMMUM BONUM.—(See **BONUM**).

SUPERSTITION.—Belief and attendant feeling resting on supposed supernatural intervention, in cases where the occurrences are capable of explanation in accordance with natural law. It may imply a *misdirection* of religious feeling ; manifested in showing religious veneration or regard to objects which deserve *none*" (see Hume, *Essays*, Superstition and Enthusiasm).

SUPERNATURAL.—Occurrence proceeding directly from a cause superior to the action of the laws of nature (M'Cosh, *On the Supernatural*, pp. 146, 147).

SUPERORDINATE.—*V.* SUBORDINATE.

SUPRANATURALISM (*supra*, above ; *natura*, nature) is the doctrine that in nature there are more than physical causes in operation, and that in religion we have the guidance not merely of reason but of revelation. It is thus opposed to *Naturalism* on the one hand, and to *Rationalism* on the other.

SURVIVAL OF THE FITTEST.—*V.* EVOLUTION.

SYLLOGISM (συλλογισμός, a putting together of judgments or reasonings).

This word occurs in the writings of Plato, in the sense of judging or reasoning ; but not in the technical sense assigned to it by Aristotle.

According to Aristotle (*Prior. Analyt.*, lib. i. cap. i. sec. 7), "a *sylogism* is a speech (or enunciation, λόγος) in which certain things (the premisses) being supposed, something different from what is supposed (the conclusion) follows of *necessity* ; and this solely in virtue of the suppositions themselves."

"A *sylogism* is a combination of two judgments necessitating a third judgment as the consequence of their mutual relation" (Mansel, *Prolegom. Log.*, 2nd ed., p. 69).

Euler likened the *sylogism* to three concentric circles, of which the first contained the second, which in its turn contained the third. Thus, if A be predicable of all B, and B of all C, it follows necessarily that A is also predicable of C.

In a *sylogism*, the first two propositions are called the *premisses* ; because they are the things premised or put before ; they are called respectively the *Major* and *Minor* (*q.v.*) The third proposition which contains the thing to be proved, is

called the *conclusion* or *consequent*; e.g., "every virtue is laudable. Diligence is a virtue, therefore diligence is laudable." The two former propositions are the *premisses*, and the last is the *conclusion*.

In a *syllogism*, "the conclusion having two terms, a subject and a predicate, its predicate is called the *major term*, and its subject the *minor term*. In order to prove the conclusion, each of its terms is, in the premisses, compared with the third term, called the *middle term*. By this means one of the premisses will have for its two terms the major term and the middle term; and this premiss is called the *major premiss*. The other premiss must have for its two terms the minor term and the middle term, and it is called the *minor premiss*. Thus the *syllogism* consists of three propositions, distinguished by the names of the *major*, the *minor*, and the *conclusion*; and although each of these has two terms, a subject and a predicate, yet there are only three different terms in all" (Reid, *Account of Aristotle's Logic*, iii. sec. 2). From the character of the propositions of which it is composed, *i.e.*, their quantity and quality, as A, E, I, or O, arise the various *moods* of the syllogism; and from the varying position of the terms in the premisses arise its *Figures*. The number of these last is, according to the traditional view, four. Hamilton attacks the Fourth Figure as unnatural and unnecessary (see *Logic*, ii., app., p. 453), and would indeed, as a consequence of the *Quantification of the Predicate* (*q.v.*), abolish the distinction of Figure altogether.

SYMBOLIC CONCEPTION.—V. CONCEPTION.

SYMBOLIC LOGIC.—A term invented by De Morgan and adopted by Venn as the title of his work on the subject, Regarding the Judgment as an Equation, and Inference as the substitution of equivalent quantities. Venn develops this view in detail, applying it to the various parts of logical doctrine, and showing that each of these may be treated after the manner of Algebra (see Venn, *Symbolic Logic*).

SYMPATHY (*συμπάθεια*, fellow-feeling), feeling in harmony with the feeling of another, whether pleasurable or painful. The philosophic use includes all forms of feeling:

popular usage more commonly applies the term to fellow-feeling with a sufferer.

"Pity and compassion are words appropriated to signify our fellow-feeling with the sorrow of others. *Sympathy*, though its meaning was, perhaps, originally the same, may now, however, without much impropriety, be made use of to denote our fellow-feeling with any other passion whatever" (Smith, *Theory of Mor. Sent.*, pt. i. sec. 1).

Sympathy with sorrow or suffering is *compassion*; *sympathy* with joy or prosperity is *congratulation*.

Adam Smith, in his *Theory of Moral Sentiments*, makes *sympathy* the ultimate appeal as regards the moral value of actions, maintaining that we can estimate them aright only when we judge them from the standpoint of an "impartial spectator."

SYNCATEGOREMATIC.—V. CATEGOREMATIC.

SYNEIDESIS (*συνείδησις*, joint-knowledge), the Greek term for Conscience, regarded as the faculty discovering the quality of actions by reference to moral law. Trench suggests that it may imply knowledge together with God, the giver of the moral law.

SYNTHESIS (*σύνθεσις*, a putting together, combination or composition).—There is a natural synthesis and a philosophic. Experience is synthesis of the manifold; the purpose of philosophy is to ascertain the conditions under which this is realised. (1) The natural process in the history of mind, in accordance with which the unity of consciousness is maintained, however great the variety of phenomena; (2) the combining or reuniting of phenomena, parts, or elements, severed or distinguished by a prior analytic process. The first sense concerns natural procedure in mind, thus supplying the fundamental problem in mental philosophy. The second sense is applicable equally in the domain of science and of philosophy. In this case synthesis is the correlative of analysis preceding. The latter is an artificial severance; the other an artificial recombination or reconstruction under guidance of nature.

What are the conditions in accordance with which the unity of consciousness is secured? How do we account for the unity

of our intellectual life? This was the question raised into prominence by Kant applying the critical method which distinguishes *à priori* from *à posteriori*, form from matter, in consciousness—a question afterwards still further emphasised by Hegel. Prior to Kant the analytic process had been allowed so prominent a place that it was assumed to lead to final results in the distinguishing of faculties or powers of mind.

The synthetic process is, however, that which guides to an ultimate view or finished philosophic scheme of mental activity.

There is here close analogy in the philosophy of nature (science proper) and the philosophy of mind (Ueberweg's *Logic*, pp. 547–557; Sully's *Outlines of Psychology*, p. 316).

“Synthesis consists in assuming the causes discovered and established as principles, and by them explaining the phenomena proceeding from them and proving the explanation” (Newton, *Optics*).

Dealing with synthesis in its primary sense, Cousin has said:—“Every *synthesis* which has not started with a complete *analysis* ends at a result which, in Greek, is called *hypothesis*; instead of which, if *synthesis* has been preceded by a sufficient *analysis*, the *synthesis* founded upon that *analysis* leads to a result which in Greek is called *system*. The legitimacy of every *synthesis* is directly owing to the exactness of *analysis*, every system which is merely an hypothesis is a vain system; every *synthesis* which has not been preceded by analysis is a pure imagination: but at the same time every analysis which does not aspire to a *synthesis* which may be equal to it, is an analysis which halts on the way. On the one hand, *synthesis* without analysis gives a false science; on the other hand, analysis without *synthesis* gives an incomplete science. An incomplete science is a hundred times more valuable than a false science; but neither a false science nor an incomplete science is the ideal of science. The ideal of science, the ideal of philosophy, can be realised only by a method which combines the two processes of *analysis* and *synthesis*” (*Hist. Mod. Phil.*, Eng. transl., i. 277, 278; see Lotze, *Logic*, 406–8, Bosanquet's transl.).

SYNTHETICAL METHOD.—“The movement of the

Synthetic Method is the reverse of the *Analytical Method*. The latter starts from the individual and proceeds to the universal; in the former the starting-point is given by the universal (as a definition), from which we proceed by particularising (in division) to the individual or theorem. The synthetical method thus presents itself as the development of the functions of the notion as they offer themselves on the object" (*Logic of Hegel*, Wallace, p. 316).

SYSTEM (σύστημα; from συνίστημι, to stand together), a full connected view of some department of knowledge. An organised body of truth or truths. *System* applies not only to our knowledge, but to the objects of our knowledge. It is implied in the objects in order that it may be in the knowledge. Thus we speak of the planetary *system*, the muscular *system*, the nervous *system*. Order has its foundation in the nature of things. It is this belief that encourages the prosecution of knowledge.

"A *System*, *Economy*, or *Constitution* is a one or a whole, made up of several parts, but yet the several parts, even considered as a whole, do not complete the idea, unless in the notion of a whole you include the relations and respects which these parts have to each other. Every work, both of nature and of art, is a *system*, and as every particular thing, both natural and artificial, is for some use or purpose out of and beyond itself, one may add to what has been already brought into the idea of a *system*, its conduciveness to this one or more ends" (Butler, *Preface to Sermons*).

TABULA RASA (a tablet made smooth).—The ancients were wont to write upon tablets covered with soft wax, on which the writing was traced with the sharp point of the stylus or iron pen. When the writing had served its purpose, it was effaced by the broad end of the stylus being employed to make the wax smooth. The tablet was then, as at first, *tabula rasa*, ready to receive any writing which might be put upon it. In opposition to the doctrine of *innate ideas* (q.v.) the mind of man has been compared to a *tabula rasa*, or a sheet of white paper—having at first nothing written upon it, but ready to receive what may be inscribed on it by the hand

of experience. This view is maintained by Hobbes, Locke, and others. On the other hand, Lord Herbert of Cherbury compares the mind to a book all written over within, but the leaves of which are closed, till they are gradually opened by the hand of experience, and the imprisoned truths or ideas set free. Leibnitz, speaking of the difference between Locke and him, says:—"The question between us is whether the soul in itself is entirely empty, like a tablet upon which nothing has been written (*tabula rasa*), according to Aristotle (*De Anima*, lib. iii. cap. iv. sec. 14) and the author of the *Essay on Human Understanding* (bk. ii. ch. i. sec. 2), and whether all that is there traced comes wholly from the senses and experience; or whether the soul originally contains the principles of several notions and doctrines, which the external objects only awaken upon occasions, as I believe with Plato." This last was also the doctrine of Descartes, whose *innate ideas* Locke strangely misunderstood.

TACT (adaptation; in touch with circumstances)—"By *tact* we mean an inferior degree of talent—a skill or adroitness in adapting words or deeds to circumstances, involving, of course, a quick perception of the propriety of circumstances. It is also applied to a certain degree of mechanical skill" (Moffat, *Study of Æsthetics*).

TALENT.—"By *talent*, in its distinctive meaning, we understand the power of acquiring and adroitly disposing of the materials of human knowledge, and products of invention in their already existing forms, without the infusion of any new enlivening spirit. . . . *Talent* values effort in the light of practical utility; *genius* always for its own sake labours for the love of labour. *Talent* may be acquired. . . . *Genius* always belongs to the individual character, and may be cultivated, but cannot be acquired" (Moffat, *Study of Æsthetics*).

"*Talent* lying in the understanding is often inherited; *genius* being the action of reason and imagination, rarely, or never" (Coleridge).

TASTE.—*Taste* has been defined as a kind of *extempore judgment*. Burke explained it as an instinct which immediately awakes the emotions of pleasure or dislike.

The objects of *Taste* have been classed as the *Beautiful*, the *Sublime*, and the *Picturesque*. The question is whether these objects possess certain inherent qualities which may be so called, or whether they awaken pleasing emotions by suggesting or recalling certain pleasing feelings formerly experienced in connection or association with these objects. The latter view has been maintained by Alison in his *Essay on Taste*, and by Lord Jeffrey in the article "Beauty" in the *Encyclopædia Britannica* (8th ed.).

Lord Jeffrey has said—"It appears to us, then, that objects are sublime and beautiful; first, when they are the *natural* signs and *perpetual concomitants* of pleasurable sensations, or, at any rate, of some lively feeling or emotion in ourselves, or in some other sentient beings; or secondly, when they are the arbitrary or *accidental concomitants* of such feelings; or thirdly, when they bear some *analogy* or *fancied resemblance* to things with which these emotions are necessarily connected."

Stewart has observed that "association of ideas can never account for a new notion or a pleasure essentially different from all others" (*Elements*, ch. v. pt. ii. p. 364).

"That power of the mind by which we are capable of discerning and relishing the beauties of nature, and whatever is excellent in the fine arts, is called *Taste*. . . . Like the taste of the palate, it relishes some things, is disgusted with others; with regard to many, is indifferent or dubious; and is considerably influenced by habit, by associations, and by opinion" (Reid, *Intellectual Powers*, essay viii. ch. 1.).

"By the objects of *Taste*, I mean those qualities and attributes of things which are, by nature, adapted to please a good taste. Mr Addison (*Spectator*, vol. vi.) and Dr Akenside (*Pleasures of Imagination*), after him, has reduced them to three-- to wit, *Novelty*, *Grandeur*, and *Beauty*" (*ib.*, ch. ii.).

Gérard, *Essay on Taste*; Sir Joshua Reynolds, *Discourses before Royal Society*; Burke, *On Sublime and Beautiful*; Hume, *Essay on Standard of Taste*; Stewart, *Philosoph. Essays*, pt. ii., *Relative to Taste*; Brown, *Philos. of Mind*, lects. liii.-lvii.—V. *ÆSTHETICS, BEAUTY*.

TELEOLOGY (τέλος, an end; λόγος, discourse), the

doctrine of *Final Causes*, or *Ends*. It is made the basis of an argument for the existence of God, as by Socrates, *Memorabilia*, i. 4, 4; iv. 3, 3; Aristotle, *Metaph.*, ix 8. Epicurus, holding the eternity of atoms, rejected a teleological doctrine (Diog. Laertius; Zeller's *Stoics, Epicureans and Sceptics*). Hume objected to the doctrine as transcending the limits of experience (*Dialogues on Natural Religion*). For an able discussion of the subject, v. Janet, *Final Causes*.—V. FINAL CAUSE.

TEMPERAMENT (*tempero*, to moderate, to season). Prevailing bias of disposition, whether natural or acquired. The balance of our animal principles, I think, constitutes what we call a man's *natural temper* (Reid, *Active Powers*, essay iii. pt. ii. ch. viii.).

Bodily constitution, as affecting the prevailing bias of the mind, has been called *temperament*. It has been distinguished as *sanguine*, *choleric*, *melancholic*, and *phlegmatic*, to which may be added *nervous temperament*. According to the bodily constitution of individuals, a corresponding difference will be found in the general state or *disposition* of the mind; and there will be a bias, or tendency to be moved by certain principles of action more readily than by others.

We speak also of mind as having a constitution, containing certain primary elements; and, according as these are combined and balanced, there may be differences in individuals, and these also may give rise to *disposition* or bias. According as intellect, or sensitivity, or will prevails, there will be a correspondent bias of nature.

Differences in the *Primary desires* make differences of *disposition* most observable. Any *desire*, when powerful, draws over the other tendencies of the mind to its side; gives colour to the whole character, manifesting its influence on temper and conduct. *Disposition* is the sum of a man's desires and feelings.

"As character comprises the entire sphere of the educated will, so *temperament* is nothing else than the sum of our natural inclinations and tendencies. Inclination is the material of the will, developing itself when *controlled*, into character, and when

controlling, into passions. *Temperament* is, therefore, the root of our passions; and the latter, like the former, may be distinguished into two principal classes. Intelligent psychologists and physicians have always recognised this fact; the former dividing *temperaments* into active and passive, the latter classifying the passions as exciting and depressing" (Feuchtersleben, *Diætics of the Soul*; the works of Galen, an essay, *Quod anima mores corporis temperamenta sequuntur*; Feuchtersleben, *Medical Psychology*).

TEMPERANCE (*temperantia*, σωφροσύνη), moderation as to pleasure. Socrates said:—"Temperance is the foundation of every virtue" (Xenophon's *Memorabilia*, i. ch. v.). Plato describes it as "a sort of order and control of certain pleasures and desires," implied in a man being master of himself. "It is of the nature of symphony and harmony" (*Republic*, bk. iv. p. 430).

Aristotle (*N. Ethic.*, lib. iii. cap. x.) confined it chiefly to bodily pleasures. By Cicero the Latin word *temperantia* was used to denote the duty of self-government in general. *Temperantia est quæ ut in rebus expetendis aut fugiendis rationem sequamur monet.*

Temperance was one of the four cardinal virtues of ancient philosophy. It may be manifested in regulation of all our natural appetites, desires, passions, and affections. It consists in guarding against temptations to self-indulgence; while fortitude consists in facing resolutely the evils and dangers of life.

TENDENCY (*tendo*, to stretch towards).—(1) Physical use, natural inclination; (2) Ethical use, a disposition, coming under control of the will.—*V. INCLINATION.*

TERM (*ὅρος*, *terminus*, a limit).—A *term* is a concept expressed in language. Every proposition consists of two terms, the *Subject* and *Predicate* (*q.v.*), united by the *Copula* (*q.v.*). The Subject and Predicate are called *Terms*, because they form the first and last members of the proposition—its extremes; and every word or combination of words which can alone form the subject or predicate of a proposition is called a *Term* (*cf.*, CATEGOREMATIC). "I call that a *term* into which a proposition is resolved, as, for instance, the predicate and that

of which it is predicated" (Aristotle, *Prior. Analyt.*, lib. i. cap. i.).

Terms have been variously classified by logicians ; the following are the distinctions of most importance :—

(1) A *Common* or *General* Term is one which may be predicated in the same sense of each of several individuals, in virtue of their possessing certain attributes in common, *e.g.*, "Man," "City."

(2) A *Singular* Term is one which can be predicated in the same sense of only one individual. Such are all *proper* names, as "Socrates," "London."

(3) A *Collective* Term is one which may be predicated of a group or class of individuals taken together, but not of each individual alone, *e.g.*, "Army."

(4) An *Attributive* Term is one which expresses "attributes or groups of attributes only" (Fowler), but in relation to the individuals possessing them. It can only form the predicate of a proposition, *e.g.*, "Good."

(5) An *Abstract* Term also expresses attributes or groups of attributes only, but out of relation to the individuals possessing them. It may form the subject of a proposition, *e.g.*, "Goodness."

Besides these, there are several other classes of terms mentioned in logical text-books, though they are not of the same importance :—

(6) Terms are distinguished as *Positive*, *Negative*, and *Privative*.

A *Positive* Term is one which expresses the possession of an attribute, as "Wise"; a *Negative* Term is one which expresses the absence of an attribute, as "Unwise"; a *Privative* Term is one which expresses the absence of an attribute whose presence is natural or usual, *e.g.*, "Blind."

(7) *Absolute* and *Relative*.

An *Absolute* Term expresses a concept which can be thought without reference to anything beyond itself, as "Man"; a *Relative* Term is one which necessarily suggests some other, without reference to which it cannot be conceived, *e.g.*, "Father" and "Son" are called respectively *correlative* terms.

As regards *Connotation* and *Denotation* of Terms,—*Common* Terms are both Connotative and Denotative; *Singular* and *Collective* Terms are Denotative only; *Attributive* and *Abstract* Terms are Connotative only.

Jevons holds that Proper Names are connotative (see *Elementary Lessons in Logic*, pp. 41–44; *Studies in Deductive Logic*, p. 2). Mill takes the opposite view (*Logic*, bk. i. ch. ii. sec. 5). Keynes would form a separate class for “non-connotative singular names,” i.e., *Proper* names (*Formal Logic*, p. 20). On *Contrary* and *Contradictory* Terms, see CONTRARY, CONTRADICTION.

TERMINISTS.—A name applied to the nominalists, because they held that the whole existence of universals was in the *Term* (see Ueberweg, *History of Philosophy*, vol. i. p. 462).

TESTIMONY (1) “is the declaration of one who professes to know the truth of that which he affirms;” (2) evidence in every form.

If *testimony* were not a source of evidence, we must lose all benefit of the observation and experience of others.

Locke says (*Essay*, bk. iv. ch. xv., xvi.) :—“*Testimony* may be fallacious. He who declares a thing (1) may be mistaken or imposed upon; (2) he may be an impostor and intend to deceive.” The evidence of *testimony* is, therefore, only probable, and requires to be carefully examined.

Hume maintains that no amount of *testimony* can be sufficient to establish the truth of a miracle. See reply to him by Adams, in his *Essay on Miracles*, Campbell on *Miracles*, and Douglas on *Miracles*.

“*Testimony* is like an arrow shot from a long bow; the force of it depends on the strength of the hand that draws it. *Argument* is like an arrow from a cross bow, which has equal force though shot by a child” (Bacon). See Sir G. C. Lewis, *Authority on Matters of Opinion*.—V. PROBABILITY, CREDIBILITY.

THEISM (Θεός, God).—The theory of the universe which regards an Absolute Being, infinite in intelligence and perfect in moral goodness, as the author of all things. “To believe

that everything is governed, ordered, or regulated *for the best*, by a designing principle or mind, necessarily good and permanent, is to be a perfect *Theist*" (Shaftesbury, *Inquiry*, bk. iv. pt. 1.).

"These are they who are strictly and properly called *Theists* who affirm that a perfectly conscious understanding, being, or mind, existing of itself from eternity, was the cause of all other things; and they, on the contrary, who derive all things from senseless matter, as the first original, and deny that there is any conscious understanding being, self-existent or unmade, are those that are properly called *Atheists*" (Cudworth, *Intellectual System*, bk. i. ch. iv. sec. 4).

Theist and *Deist* equally signify one who believes in God; and about the beginning of last century both were employed to denote one who believes in God independently of revelation. "Averse as I am to the cause of *Theism* or name of *Deist*, when taken in a sense exclusive of revelation, I consider still that, in strictness, the root of all is *Theism*, and that, to be a settled Christian, it is necessary to be first of all a *good Theist*" (Shaftesbury, *The Moralists*, pt. i. sec. 2.). But from about the time of Shaftesbury the term *Deist* has generally been applied to such as are indifferent or hostile to the claims of Revelation. Balguy's *First Letter to a Deist* was against Lord Shaftesbury. His *Second Letter to a Deist* was against Tindal. All the Deistical writers noticed by Leland were unfriendly to Revelation.

"Custom has appropriated the term *Deist* to the enemies of revelation and of Christianity in particular; while the word *Theist* is considered applicable to all who believe in one God" (Irons, *On Final Causes*). "The person who believes in a transcendental theology alone is termed a *Deist*, he who acknowledges the possibility of a natural theology also a *Theist*" (Kant's *Critique of Pure Reason*, Meiklejohn, p. 387).

"Those are called *Theists* who hold that God exists, whether their views of His Nature be worthy or unworthy. *Deists* was the name applied to the philosophers of last century, who, while maintaining the Divine existence, denied providence, revelation, miracles, in a word, everything supernatural"

(Ubaghs, *Theodiceæ Elementa*. See also Flint, *Theism*; Lotze, *Microcosmus*, i. 376).—V. DEIST, ATHEISM.

THEODICY (Θεός, God; δίκη, a pleading or justification), a vindication of the ways of God. This word was employed by Leibnitz, who, in his *Essais de Theodicée, sur la bonté de Dieu, la liberté de l'homme et l'origine du mal* (1710), maintained that moral evil has its origin in the free will of the creature, while metaphysical evil is nothing but the limitation which is involved in the essence of finite beings, and that out of this both physical and moral evil naturally flow. But these finite beings are designed to attain the utmost felicity they are capable of enjoying, while each, as a part, contributes to the perfection of the whole, which, of the many worlds that were possible, is the very best. On this account it has been called *Optimism*.

In the *Manuel de Philosophie*, Paris, 1846, *Theodicée* is called by Susset rational theology, or the theology of reason, independent of Revelation. "It proposes to establish the existence of a being infinitely perfect, and to determine his attributes and essential relations to the world."

Butler, *Analogy*, pt. i. ch. vii., treats of the government of God, considered as a scheme or constitution imperfectly comprehended; cf. pt. ii. ch. iv.

THEOLOGY (Θεός, God; λόγος, discourse), the science which treats of the divine nature and government.

The Greeks gave the name of (θεολόγοι) to those who, like Hesiod and Orpheus, with no higher inspiration than that of the poet, sang of the nature of the gods and the origin of all things. Aristotle (*Metaphysics*, bk. x. ch. vii.) said that of the three speculative sciences, physics, mathematics, and *theology*—the last was the highest, as treating of the most elevated of beings. Among the Romans, from the time of Numa Pompilius to that of the emperors, the knowledge and worship of the gods was made subservient to the interests of the state. Accordingly Augustine (*De Civitate*) says there were three kinds of *theology*—the *poetical*, or that of the poet—the *physical*, or that of the philosopher—and the *political*, or that of the legislator.

Among the Greeks and Romans, there being no written revelation, the distinction was not drawn between faith and reason. Christians, on the other hand, were long unwilling to admit that any satisfactory knowledge of God, and of His relations to His creatures, could be had independently of Revelation. It was not till after Descartes that the distinction of *Theology* as *natural* and *revealed* was commonly drawn. The distinction is rather obscured in the *Essais de Theodicée* of Leibnitz, but clearly expressed by Wolf in the title of his work, *Theologia Naturalis Methodo Scientifica Pertractata*, 1736–37. He thinks it is demonstrative, and calls it (*Prolegom.*) “The science which has for its object the existence of God and his attributes, and the consequences of these attributes in relation to other beings.”

Natural Theology confines itself exclusively to that knowledge of God which the light of nature furnishes, and does not intermeddle with the discoveries or doctrines of *positive* or *revealed theology*. It prosecutes its inquiries by the unassisted strength of reason within its own sphere. “Natural theology infers the attributes and the existence of an author of the world, from the constitution of the order and unity observable in the world” (Kant, *Critique*, Meiklejohn, p. 388).

On the difficulties of *Natural Theology*, see Mill, *Essays on Religion*, p. 36.

The word *theology* as now used, without any qualifying epithet, denotes that knowledge of God and of the relations of God to man and man to God, derived from Revelation. In this restricted sense it is opposed to *philosophy*.

Rational theology carries the torch or light of reason into the domain of revelation. It criticises and compares texts, analyses doctrines, examines traditions, and brings all the instruments of philosophy to bear upon things divine and spiritual, in order to reduce them to harmony with things human and rational. Kant, in the *Critique of Pure Reason, Dialectic*, denies the possibility of *Rational Theology*, in the sense of the science of the divine existence, proving in turn the invalid nature of the three proofs,—the ontological, the cosmological, and the physico-theological.

THEORY (*θεωρία*, contemplation, speculation), a rationalised explanation of facts. *Theory* and *theoretical* are properly opposed to *practice* and *practical*. *Theory* is systematised knowledge; *practice* is the application of it. *Theory* is the knowledge of the principles by which practice accomplishes its end. *Theory* always implies knowledge—knowledge of a thing in its principles or causes.

“With Plato, *θεωρεῖν* is applied to a deep contemplation of the truth. By Aristotle it is always opposed to *πράττειν*, and to *ποιεῖν*, so that he makes philosophy *theoretical*, *practical*, and *artistical*. The Latins and Boethius rendered *θεωρεῖν*, by *speculari*. With us it means a learned discourse of philosophers of speculative use” (Trendelenburg, *Elementa Log. Arist.*).

“Theory denotes the most general laws to which certain facts can be reduced” (Mackintosh, *Prel. Diss.*).

Theory and *hypothesis* are to be distinguished. A *hypothesis* is a tentative and provisional suggestion, to be tested by subsequent observations. A *theory* is a system explaining known facts. On *Theory*, as opposed to *Fact*, see Grote’s *Exploratio Philosophica*.

THEOSOPHY (*Θεός*, God; *σοφία*, knowledge). *Theosophy* may be called the speculative side of *Mysticism* (*q v.*). The latter is primarily ethical and religious: the former gives the *theory* on which the practice of the mystic is based. The *theosophic* method of reaching a speculative view of God and of the relations of the divine to the human, is peculiar. It is not by way of reason, but rather of inspiration or divine illumination. This inner revelation of the divine is superior even to the outer revelation in the scriptures. “The *theosophist* is one who gives you a theory of God, or of the works of God, which has not reason, but an inspiration of his own for its basis” (Vaughan, *Hours with Mystics*, i. 45). Hence the subjective and capricious character of the speculation. See Martensen’s *Jacob Boehme*.

The *theosophists* are a school of philosophers who mix enthusiasm with observation. Paracelsus, Jacob Boehme, and Saint Martin may be called popular; while Valentin Weigelius, Fludd, and Van Helmont, are more philosophical in their doctrines.

From the identity, so far, of Theosophy and Mysticism, ~~the~~ names are the same in the main under both.—V. MYSTICISM.

THESIS (θέσις, from τίθημι, to lay down), a proposition, the truth of which requires proof. In the schools of the Middle Ages it was especially applied to those propositions in theology, philosophy, law, and medicine, which the candidates for degrees were required to defend. *Thesis*, *Antithesis*, and *Synthesis* are, according to Fichte, the three moments in knowledge, i.e., the original self-affirmation of the Ego, its opposition by the non-Ego, and the synthesis of Ego and non-Ego in the unity of the Absolute. Kant, in the *Dialectic*, calls the *Antinomy* of Pure Reason (in regard to the cosmological Ideas) a *natural antithetic*. "By antithetic I do not understand dogmatical assertions of the opposite, but the self-contradiction of seemingly dogmatical cognitions (*thesis cum antithesi*), in none of which we can discover any decided superiority. Antithetic is not, therefore, occupied with one-sided statements, but is engaged in considering the contradictory nature of the general cognitions of reason and its causes. Transcendental antithetic is an investigation into the antinomy of pure reason, its causes and result" (*Critique of Pure Reason*, p. 263, Meiklejohn). This Antithetic is unavoidable, because the synthesis of the two opposite statements—thesis and antithesis—is unattainable; "if it is adequate to the unity of reason, it is too great for the understanding; if according with the understanding, it is too small for the reason. Hence arises a mutual opposition, which cannot be avoided, do what we will."

THING-IN-ITSELF.—Kant's expression for the thing as apart from the sensory impression. "Objects are quite unknown to us in themselves, and what we call outward objects are nothing else but mere representations of our sensibility; the thing-in-itself is not known by means of these representations" (*Critique of Pure Reason*, Meiklejohn, p. 28). "It is quite inadmissible to treat Things in themselves as utterly foreign to the forms under which they were, nevertheless, to appear to us" (Lotze's *Metaph.*, Bosanquet, p. 181).

THOUGHT AND THINKING "are used in a more

and in a less restricted signification. In the former meaning they are limited to the *discursive* energies alone; in the latter they are co-extensive with consciousness" (Hamilton, *Reid's Works*, p. 222, note).

By Descartes, *cogitatio*, *pensée*, is used to comprehend "all that in us of which we are immediately conscious. Thus all the operations of the will, of the imagination, and senses, are *thoughts*" (*Resp. ad Sec. Obj.*). Again, in reply to the question, What is a thing which thinks? he says, "It is a thing that doubts, understands, conceives, affirms, desires, wills, refuses, that imagines also and perceives" (*Medit.*, ii.).

(1) *Thinking* is employed by Hamilton (*Discussions*, app. i. p. 602) as "comprehending all our cognitive energies."

(2) "The thinking process may be adequately defined as the *act of knowing or judging of things by means of concepts*" (Mansel, *Proleg. Log.*, p. 22).

Thought is the act of the mind in comparing the objects of knowledge. The simple act of perception by which we recognise an external object; such as a stone, is the act of knowing; but if the stone be compared with other objects around, or if the different properties of the stone be contrasted, such as its length and its breadth, this is an exercise of *thought*. The consciousness of our own acts of mind is knowledge; the comparison of different mental acts or states is *thought* (Calderwood, *Phil. of Infin.*, 3rd ed., p. 253).

The relation of thought to the sensory is thus stated by Kant:—"Without the sensuous faculty no object would be given to us, and without the understanding no object would be thought. Thoughts without content are void; intuitions without conceptions blind" (*Critique*, p. 46).

Thought is defined by Lotze as "the reaction of the mind on the material supplied by external influences" (*Logic*, p. 1, Bosanquet's transl.), and again, as "the surplus of work over and above the current of ideas" (*ib.*, p. 5).

TIME (*tempus*).—(1) Succession in the order of phenomena; (2) duration of existence measured by some standard of relation; (3) the mental form, in accordance with which succession is represented in consciousness.

By Aristotle, *time* was defined to be "the measure of motion, *secundum prius et posterius*." "By men in all ages the motions of the heavenly bodies have been made the measure of duration; so that this is the full definition of *time*—'It is the measure of the duration of things that exist in succession by the motion of the heavenly bodies'" (Monboddó, *Ancient Metaph.*).

According to Locke (*Essay*, bk. ii. ch. xiv. sec. 3), "Reflection upon the train of ideas, which appear one after another in our minds, is that which furnishes us with the idea of succession; and the distance between any parts of that succession, or between the appearance of any two ideas in our minds, is that we call duration."

See also Cousin, *Cours de Philos.*, leçons 17, 18; Reid, *Intellectual Powers*, essay iii. ch. v.

Reid says:—"I know of no ideas or notions that have a better claim to be accounted simple and original than those of space and time. . . ."

"Memory gives us the conception and belief of finite intervals of duration. *From the contemplation of these, reason leads us necessarily to the belief of an eternity, which comprehends all things that have a beginning and end*" (*Intellectual Powers*, essay iii. ch. v).

In the philosophy of Kant, "Time is not something which subsists of itself, or which inheres in things as an objective determination, and therefore remains when abstraction is made of the subjective conditions of the intuitions of things. . . . Time is nothing else than the form of the internal sense; that is, of the intuitions of self and of our internal state. . . . Time is the formal condition, *à priori*, of all phenomena whatsoever" (Kant, *Critique of Pure Reason*, Meiklejohn, p. 30).

TOPICS.—V. ORGANON.

TRAIN OF THOUGHT.—The correlated phenomena in consciousness, as they imply succession in time, and unity in thought-action.

In the succession of the various modes of consciousness there is some kind of order. "Not every thought to every thought succeeds indifferently," says Hobbes. The inquiry of

philosophers concerns the laws according to which the succession of thought is determined.

According to Aristotle, the consecution of thoughts is either *necessary* or *habitual*. There are notions so related, that the one cannot be thought without thinking the other; as cause and effect, means and end, quality and substance, body and space. The *habitual* consecution of thoughts differs in different individuals: but the general laws, according to which it is regulated, are chiefly three, viz., the law of *similarity*, the law of *contrast*, and the law of *co-adjacency*. From the time of Aristotle, these laws have been noticed and illustrated by all writers on the subject. But it has been thought that these may be reduced to one supreme and universal law; and Mackintosh expresses his surprise (*Dissert.*, p. 348, ed. Whewell) that Brown should have spoken of this as a discovery of his own, when the same thing had been hinted by Aristotle, distinctly laid down by Hobbes, and fully unfolded both by Hartley and Condillac.

The brief and obscure text of Aristotle, in his *Treatise on Memory and Reminiscence*, has been explained as containing the universal law as to the consecution of thoughts (Hamilton, *Reid's Works*, note n*, p. 897). He proposes to call this the law of *Redintegration* (*q.v.*). "Thoughts which have, at any time, recent or remote, stood to each other in the relation of co-existence, or immediate consecution, do, when severally reproduced, tend to reproduce each other. In other words, the parts of any total thought, when subsequently called into consciousness, are apt to suggest, immediately, the parts to which they were proximately related, and mediately, the whole of which they were co-constituent."

Hobbes, *Leviathan*, pt. i. ch. iii.; *Human Nature*, bk. i. pt. i. sec. 1.; Reid, *Inquiry*, sec. 3; *Intellectual Powers*, essay iv. ch. iv. • F. ASSOCIATION.

TRANSCENDENTAL, TRANSCENDENT (*transcendo*, to go beyond, to surpass; having its highest application to the Supreme; as transcending all limits). (1) As applicable to knowledge (transcendental), that which transcends experience, being given *à priori*; as applicable to *being*

(transcendent), the absolute, transcending all limitation. (For Kant's distinction of the two terms, see below.)

"In the schools, *transcendentalis* and *transcendens* were convertible expressions employed to mark a term or notion which *transcended*, that is, which rose above, and thus contained under it the categories or *summa genera* of Aristotle. Such, for example, is being, of which the ten categories are only subdivisions. Kant, according to his wont, twisted these old terms into a new signification. First of all, he distinguished them from each other. *Transcendent* (*transcendens*) he employed to denote what is wholly beyond experience, being given neither as an *à posteriori* nor *à priori* element of cognition—what, therefore, transcends every category of thought? *Transcendental* (*transcendentalis*) he applied to signify the *à priori* or necessary cognitions which, though manifested in, as affording the conditions of experience, transcend the sphere of that contingent or adventitious knowledge which we acquire by experience. *Transcendental* is not therefore what transcends, but what in fact constitutes a category of thought. This term, though probably from another quarter, has found favour with Mr Stewart, who proposes to exchange the expression *principles of common sense*, for, among other names, that of *transcendental truths*" (Hamilton, *Reid's Works*, note A, sec. 5, p. 762).

In the philosophy of Kant all those principles of knowledge which are original and primary, and which are determined *à priori* are called *transcendental*, as opposed to empirical. These transcendental principles are given *à priori*, and are essential to constitute experience. That which lies beyond the limits of our thought, transcending all experience, is the *transcendent*. Thus Kant says:—"Transcendental and transcendent are not identical terms. The principles of the pure understanding ought to be of empirical, and not of transcendental use, that is, they are not applicable to any object beyond the sphere of experience" (*Critique of Pure Reason*, Meiklejohn, p. 211). "What is transcendental is not transcendent; that is, it is not transcendent absolutely of experience, it is *in* experience, but transcendent of the element

of sense in experience" (Stirling's *Text-Book to Kant*, p. 399). "*Transcendent* is an object *beyond* experience. *Transcendental* applies to an object that is *in* experience, but yet of a *validity* that is *beyond* experience. Kant's question of *Quid juris* is addressed wholly to that validity, of which the causal *nexus* is an example" (*ib.*, p. 13).

"There is a *philosophic* (and inasmuch as it is actualised by an effort of freedom, an *artificial*) *consciousness* which lies beneath, or (as it were) *behind* the spontaneous consciousness natural to all reflecting beings. As the elder Romans distinguished their northern provinces into Cis-Alpine and Trans-Alpine, so we may divide all the objects of human knowledge into those on this side, and those on the other side of the spontaneous consciousness; *citra et trans conscientiam commune*. The latter is exclusively the domain of *pure* philosophy, which is, therefore, properly entitled *transcendental* in order to discriminate it at once, both from mere reflection and representation on the one hand, and on the other from those flights of lawless speculation, which, abandoned by *all* distinct consciousness, because transgressing the bounds and purpose of our intellectual faculties, are justly condemned as *transcendent*" (Coleridge, *Biograph. Liter.*).

TRANSMIGRATION. - *V.* METEMPSYCHOSIS.

TRANSPOSITION.—*V.* CONVERSION.

TRILOGY of Hegel. In Hegelian usage, the unity of thought consists in the unity of these three stages,—affirmation, negation, identification: otherwise, thesis, antithesis, synthesis. These are the three moments in thought movement. All reality is a process, represented in dialectic movement, which is marked by three moments. This is the essential characteristic of the Hegelian system, in accordance with which there is at every stage a trinity or trilogy. In each stage negation or contradiction becomes the key to movement, by discovery of a different or contrary, which falls to be included, making progress inevitable (Stirling's *Secret of Hegel*; Wallace's *Logic of Hegel*; Caird's *Hegel*).

TRIVIUM.—The seven *Liberal Arts* were Grammar, Rhetoric, Logic, Arithmetic, Geometry, Astronomy, and Music.

Lingua, Tropus, Ratio, Numerus, Angulus, Astra, Tonus. *Grammar, Logic, and Rhetoric* constituted the *trivium*—*tres vice in unum*, because they all refer to words or language. *Arithmetic, Geometry, Music, and Astronomy*, constituted the *Quadrivium*—*quatuor vice in unum*, because they all refer to quantity.

This division (Trivium) of the sciences is ascribed to St Augustine, and we find it established in the 6th century (Brucker, *Hist. Crit. Phil.*).

TRUTH.—The conformity of knowledge with its object, or the harmony of thought with reality.

In its etymological sense, *truth* signifies that which the speaker “trows,” or believes to be the fact. The etymology of the word ἀληθές, τὸ μὴ λῆθον, seems to be similar; denoting non-concealment.

Truth, in the strict logical sense, applies to propositions and to nothing else; and consists in the conformity of the declaration made to the actual state of the case; agreeably to Aldrich’s definition of “a true” proposition—*vera est quæ quod res est dicit*.

Truth has been distinguished by most metaphysical writers, according as it respects being, knowledge, and speech, into *veritas entis, cognitionis, et signi*. By others, *truth* has been distinguished as *entitative, objective, and formal*, the *truth* of signs being included under the last. Existence is, however, the presupposition, while truth is harmony with it.

Knowledge is the knowledge of something, and when a thing is known as it is, that knowledge is true.

The *truth* of a sign or artificial symbol consists in its adequateness or conformity to the thing signified.

“Independent of the truth which consists in the conformity of thoughts to things, called *scientific*—and of that which lies in the correspondence of words with thoughts, called *moral truth*—there is a *truth* called *logical*, depending on the self-consistency of thoughts themselves. . . . Thought is valueless except in so far as it leads to correct knowledge of things; a higher *truth* than the merely logical, in subservience to which the logical is desirable. . . . If we call the *logical*

truth, subjective, as consisting in the due direction of the thinking subject, we may call this higher metaphysical *truth, objective*, because it depends on our thoughts fairly representing the objects that give rise to them" (Thomson, *Outline of Laws of Thought*).

TRUTHFULNESS.—V. VERACITY.

TRUTHS, FIRST OR NECESSARY, AND CONTINGENT.—*Necessary truths* are those which, as self-evidencing, *must* be true; their negation is not only false, but impossible, as involving a violation of understanding, or a contradiction of what is otherwise recognised as true.

"A *necessary* truth or law of reason, is a truth or law the opposite of which is inconceivable, contradictory, nonsensical, impossible; more shortly, it is a truth, in the fixing of which nature had only *one* alternative, be it positive or negative. Nature might have fixed that the sun should go round the earth, instead of the earth round the sun; at least we see nothing in that supposition which is contradictory and absurd. Either alternative was equally possible. But nature could not have fixed that two straight lines should, in any circumstances, enclose a space; for this involves a contradiction" (Ferrier, *Inst. of Metaph.*, p. 20).

Contingent truths are those which, without doing violence to intelligence, we may conceive to be otherwise, as in the movement of the earth round the sun.

This has been otherwise expressed by Leibnitz (*Nouv. Ess.*, iv. 2; *Monadologie*, sec. 33), distinguishing essential truth from occurrence.

"There are *truths of reasoning* (reason) and *truths of fact*. *Truths* of reason are necessary, and their contradictory is impossible—those of *fact* are contingent, and their opposite is possible. When a *truth* is necessary you can find the reason by analysis, resolving it into ideas and *truths* more simple, till you come to what is primitive."

Reid makes a like distinction, on which Hamilton remarks (*Reid's Works*, note A, p. 713, note):—"Though the *primary truths of fact* and the *primary truths of intelligence* (the *contingent* and *necessary* truths of Reid) form two very distinct

classes of the original beliefs or intuitions of consciousness, there appears no sufficient ground to regard their sources as different, and therefore to be distinguished by different names. In this I regret that I am unable to agree with Mr Stewart (see his *Elements*, vol. ii. ch. i.; and his *Account of Reid*, supra, p. 27, b)."

"These [first] truths are and must be assented to by every rational being, as soon as the terms expressing them are understood. They have been called *κοινὰ ἔννοιαι*, *communes notitiæ*, natural judgments, primitive beliefs, fundamental laws of the human mind, principles of common sense, principles of reason, principles of reasoning, &c.

"..... To determine how great is the number of these propositions is impossible; for they are not in the soul as propositions; but it is an undoubted truth that a mind awaking out of nothing into being, and presented with particular objects, would not fail at once to judge concerning them, according to, and by the force of, some such *innate principles* as these, or just as a man would judge who had learnt these explicit propositions; which indeed are so nearly allied to its own nature, that they may be called almost a part of itself." (Watts, *Phil Essays*).

According to Hamilton (*Metaph*, lect. xxxviii.), Leibnitz first distinguished these by the characters of *necessity* and *universality*. Descartes had touched upon them—Spinoza had noticed universality as a characteristic. Hamilton does not seem to have been aware that Hutcheson, in his *Inaugural Oration*, notices both, and notices them as recognised by the ancients.—V. INNATE IDEAS.

Lord Herbert, *De Veritate*; Buffier, *Treatise on First Truths*, Reid, *Inquiry and Intellectual Powers*, essay vi.; Hamilton, *Reid's Works*, app., note A.—V. COMMON SENSE.

TYPE (τύπος, *typus*, from τύπτω, to strike),—(1) a representative of a class; (2) a symbol, representative of something greater.

Among the Greeks the first model which statuary made in clay of their projected work was called τύπος. *Type* therefore means the first rude form or figure of anything—an adumbration or shadowing forth. The thing fashioned according to it

was the *ectype*, and the *type* in contrast the *prototype*. *Archetype* was applied to the original idea, model, or exemplar, but of which other things were copies.

"In science, a *type* is an example of any class, for instance, a species of any genus, which is considered as eminently possessing the characters of the class. . . . The type-species of every genus, the type-genus of every family, is that one which possesses all the characters and properties of the genus in a marked and prominent manner" (Whewell, *Hist. Ind. Sci.*, ii. 120-122).

UNCONDITIONED.—Conditions are prerequisites, without which an object cannot come into being. The unconditioned is therefore existence for which there is nothing antecedent, that is, the Absolute or Self-existing.

But as "absolute" has been used in a subordinate sense, as applicable to a higher or completed relative, such as "an absolute totality," so has the term "unconditioned." Thus Kant, representing Reason as seeking "to attain to completeness in the series of premisses," describes "the absolute totality of the series" as an "unconditioned," while granting that "the absolute totality of such a series is only an idea" (*Critique, Transcendental Dialectic*, Meiklejohn, p. 261). It is very manifest that the peculiar work of reason, in its logical use, is to find for the *conditioned* cognition of the understanding the *unconditioned*, whereby the unity of the former is completed (*ib.*, p. 217).

Hamilton (after Kant) brings the *infinite* and the *absolute* under a larger abstraction, the *unconditioned*,—the *infinite* being the *unconditionally unlimited*, the *absolute* the *unconditionally limited*.

"This term (Unconditioned) has been employed . . . in a twofold signification, as denoting either the absence of all *restriction*, or more widely, the absence of all *relation*. . . . The only legitimate meaning which can be attached to the terms Unconditional and Absolute, is freedom from all restriction" (Caldwell, *Philosophy of Infinite*, 3rd ed., p. 177).

UNCONSCIOUS CEREBRATION.—V. LATENT MENTAL MODIFICATIONS.

UNDERSTANDING — The intelligence regarded as reasoning power or judgment; the intellectual activity obtaining knowledge by comparison and combination.

"There is one faculty," says Aristotle (*Eth.*, lib. vi.) "by which man comprehends and embodies in his belief first principles which cannot be proved, which he must receive from some authority; there is another by which, when a new fact is laid before him, he can show that it is in conformity with some principle possessed before. One process resembles the collection of materials for building—the other their orderly arrangement. One is intuition,—the other logic. One νοῦς, the other ἐπιστήμη."

"Our nature is so constituted, that intuition with us never can be other than sensuous, that is, it contains only the mode in which we are affected by objects. On the other hand, the faculty of thinking the object of sensuous intuition, is the understanding. Neither of these faculties has a preference over the other. Without the sensuous faculty no object could be given to us, and without the understanding no object would be thought" (Kant's *Critique of Pure Reason*, Meiklejohn, p. 45). "It is from the understanding alone that pure and transcendental conceptions take their origin; the reason does not properly give birth to any conception, but only frees the conception of the understanding from the unavoidable limitation of a possible experience, and thus endeavours to raise it above the empirical" (*ib.*, p. 256).

"The *reason* and the *understanding* have not been steadily distinguished by English writers. . . . To *understand* anything is to apprehend it according to certain assumed ideas and rules; we do not include in the meaning of the word an examination of the ground of the ideas and rules by reference to which we *understand* the thing" (Whewell's *Elements of Morality*, introd.).

"The *understanding* is the medial faculty, or faculty of means, as *reason* on the other hand is the source of ideas or ultimate ends. By *reason* we determine the ultimate end; by the *understanding* we are enabled to select and adopt the appropriate means for the attainment of, or approximation to, this end,

according to circumstances" (Coleridge, *Notes on English iv.*).

"I use the term *understanding*, not for the *noetic* faculty, tellect proper, or place of principles, but for the *dianoetic*, or scursive faculty in its widest signification, for the faculty of relations or comparisons; and thus in the meaning in which *erstand* is now employed by the Germans" (Hamilton, *Dissertations*, p. 4, note).

For the distinction specially in Kant, between Reason and Understanding, see REASON.

UNIFICATION.—The act of combining what is separate in fact or in thought. The term has been employed philosophically as applicable to an assumed absorption of the soul into the Divine nature. *Unification* with God was the final aim of the Neo-Platonists, as it is of the Mystics generally.

UNIFORMITY OF NATURE.—V. NATURE, INDUCTION.

UNITY (*unum*, one); (1) singleness of being; (2) combination of the manifold, by the harmony of parts constituting a whole. *Omne ens est unum*.

Unity is defined to be that property, *qua ens est indivisum in se et divisum ab omni alio*.

Unity is opposed to plurality, which is nothing but *plures entitates aut unitates*.

Unity has been divided into *transcendental* or *entitative*, by which a being is indivisible in itself—*logical*, by which things like each other are classed together for the purposes of science—and *moral*, by which many are embodied as one for the purposes of life, as many citizens make one society or state.

Aristotle (*Metaph.*, lib. iv. cap. vi., and lib. x. cap. i.) makes *unity* the element of number, saying that *unity* is indivisibility.

He says that the modes of *unity* are reducible to four, that of continuity, especially natural continuity, which is not the result of contact or tie—that of a whole naturally, which has figure and form, and is not like things united by violence—that of an individual, or that which is numerically indivisible—and that of a universal, which is indivisible in form and in respect of science.

Locke (*Essay*, bk. ii. ch. xvi. sec. 1) makes *unity* synonymous with *number*, regarding it as one of the *primary qualities* (q.v.).

Kant not only makes *Unity* one of the categories (along with Plurality and Totality, under the head of *Quantity*), but he even concedes to it, as the *Synthetic Unity of Apperception*, the central place in his theory of knowledge. Unity of the manifold in the synthesis of the act of cognition is, according to him, the essential feature of knowledge; and that unity which is the source of all other unity, of that of the categories of Understanding equally with that of the Forms of Sense,—of that of the Object as well as that of the Subject,—Kant calls the *Synthetic unity of Apperception* (q.v.).

UNIVERSAL (*unum versus alia*) is defined by Aristotle (*Lib. de Interpret.*, cap. v.), “that which by its nature is fit to be predicated of many.” And (*Metaph.*, lib. vi. cap. xiii.) “that which by its nature has a fitness or capacity to be in many.” It implies unity with community, or unity shared in by many.

Universals have been divided into—(1) *Metaphysical*, or *universalia ante rem*; (2) *Physical*, or *universalia in re*; (3) *Logical*, or *universalia post rem*.

By the first are meant those archetypal forms or ideas, after the pattern of which, according to Plato, all things were created.

By *universals* in the second sense are meant certain common characteristics, which are shared in by many—as *rationality* by all men.

By *universals* in the third sense are meant general notions framed by the human intellect, and predicated of many things, on the ground of their possessing common properties—as *animal*, which may be predicated of man, lion, horse, &c.

Realists give prominence to *universals* in the first and second signification. *Nominalists* hold that the true meaning of *universals* is that assigned in the third sense. While *conceptualists* hold an intermediate view (Reid, *Intellectual Powers*, essay v. ch. vi.; Thomson, *Outlines of Laws of Thought*, 3rd ed., sec. 64. See these terms).

In ancient philosophy the *universals* were called *prædicables* (*q.v.*).—*V. PREDICABLES.*

UNIVERSE.—(1) The *whole* of existence ; God, the world, and man. Thus the problem of Philosophy may be said to be the problem of the *Universe*. (2) The whole of created existence. (3) Sometimes, though incorrectly, equivalent to *world*.

UNIVOCAL WORDS (*una*, one ; *vox*, word or meaning). In Logic a common term is called *univocal* in respect of those things or persons to which it is applicable in the same signification, as the term “man.” A term is called *equivocal* when it is applied in different senses to different individuals, the difference of signification being obscured by the identity of the word. Whately observes that the “usual divisions of nouns into *univocal*, *equivocal*, and *analogous* are not, strictly speaking, divisions of words, but divisions of the *manner of employing them* ; the same word may be employed either *univocally*, *equivocally*, or *analogously*” (*Logic*, bk. ii. ch. v. sec. 1).

UNKNOWABLE (The).—*V. AGNOSTICISM.*

UTILITARIANISM.—The ethical theory which finds the bases of moral distinctions in the *utility* of actions, that is, in their fitness to produce happiness.

The theory is that of the Epicureans, in the ancient Greek philosophy, by whom a preference was given to the pleasures of the soul.

In course of its development in the history of modern philosophy, it has passed through a variety of forms. (1) The law of Happiness was made by Hobbes (*Leviathan*) the law of individual life, according to which every man seeks his good, as in competition with his neighbour. This is the *Egoistic* form. (2) The law of Happiness was regarded as the law of Society, according to which each is required to seek the greatest happiness of the greatest number, as in contrast with a fight for his own, but finding his own in seeking that of others. This was developed by Bentham and Hume in our country, and by Comte in France (*Positivism*). This is the *Altruistic* form. (3) The theory was still further refined and elevated by J. S. Mill (*Utilitarianism*), who introduced the quality, as distin-

guished from the quantity of happiness, giving intellectual happiness precedence over physical, and constituting those who have had experience of all forms the sole judges, against whose decision there can be no appeal. (4) In another phase supported by Mr Bain (*Emotions and Will*), while the pleasurable affords a test, it is the authority of society which determines moral distinctions,—morality is utility made compulsory. (5) Sidgwick, on the contrary (*Methods of Ethics*), pleads for an intuitional starting-point giving us the authoritative element, while utility is allowed to provide the test by which the detailed application must be determined.

“What is useful only, has no value in itself; but derives all its merits from the end for which it is useful” (Reid, *Active Powers*, essay v. ch. v.).

The fundamental objection to the doctrine of *utility* in all its modifications, is that taken by Reid (*Active Powers*, essay v. ch. v.), viz., “that agreeableness and *utility* are not moral conceptions, nor have they any connection with morality. What a man does, merely because it is agreeable, is not virtue. Therefore the Epicurean system was justly thought by Cicero, and the best moralists among the ancients, to subvert morality, and to substitute another principle in its room; and this system is liable to the same censure. “*Honestum, igitur, id intelligimus, quod tale est, ut, detracta omni utilitate, sine ullis premiis fructibusve, per seipsum jure possit laudari*” (*De Finibus*, ii. 14).

“The creed which accepts as the foundation of morals, utility, or the greatest happiness principle, holds that actions are right in proportion as they tend to promote happiness, wrong as they tend to produce the reverse of happiness. By happiness is intended pleasure, and the absence of pain; by unhappiness, pain, and the privation of pleasure” (J. S. Mill, *Utilitarianism*, p. 9).—V. HEDONISM, EUDÆMONISM, HAPPINESS THEORY OF MORALS.

See Bentham, *Introduction to Principles of Morals and Legislation*; J. S. Mill, *Utilitarianism*; Bain, *Emotions and Will*. Criticisms:—Grote, *Utilitarianism*; McCosh, *Examination of Mill's Philosophy*, ch. xx.; Porter, *Moral Science*; Green,

Prolegomena to Ethics, Thornton, *Old Fashioned Ethics*, p. 14; Calderwood's *Handbook of Moral Philosophy*. Sidgwick, in his *Methods of Ethics*, attempts reconciliation of Intuitionism and Utilitarianism.

VACUUM.—*V.* **ATOMISM.**

VERACITY (truthfulness, as (1) duty, (2) virtue). It is natural for us to speak as we know or think, and to believe that others do the same. Reid regards veracity as an instinct. It is only interest or passion prompts men to conceal or disguise the truth (see Abbott's *Kant's Ethics*, appendix; Newman's *Apologia*, appendix).

VERBAL is opposed to *real*, as *name* is opposed to *thing*. "Sometimes the question turns on the meaning and extent of the *terms* employed; sometimes on the *things* signified by them. If it be made to appear, therefore, that the opposite sides of a certain question may be held by parties not differing in their *opinion of the matter in hand*, then that question may be pronounced *verbal*; as depending on the different senses in which they employ the *terms*. If, on the contrary, it appears that they employ the terms in the same sense, but still differ as to the application of one of them to the other, then it may be pronounced that the question is *real*—that they differ as to the opinions they hold of the *things* in question" (Whately, *Logic*, bk. iv. ch. iv. sec. 1). For Verbal Proposition *v.* Proposition.

VERIFICATION.—*V.* **HYPOTHESIS.**

VICE.—*V.* **VIRTUE.**

VIRTUAL, synonymous with *potential* (*q.v.*) opposed to *actual*.

A thing has a *virtual* existence when all the conditions necessary to its *actual* existence are provided. In the philosophy of Aristotle, the distinction between *δύναμις*, and *ἐνέργεια*, i.e., *potentia* or *virtus*, and *actus* is frequent and fundamental.

VIRTUE,—(1) in ancient usage, bravery; (2) in modern usage, a disposition harmonising with a form of moral law, and having the force of fixed habit. The opposite of this is called *Vice*.

"The virtues" are the whole excellencies required by moral law, as these are organised in moral character.

Virtus, in Latin, from *vir*, a man, and *ἀρετή* in Greek, from *ἄρης*, *Mars*, give us the primary idea of manly strength. *Virtue*, then, implies opposition or struggle between reason and passion, and subjection of the latter. To hold by the former is *virtue*, to yield to the latter is vice. According to Aristotle, *virtue* is a practical habit acquired by doing virtuous acts. He separated intellectual from ethical virtues, calling those *intellectual*, by which the intellect is strengthened, and those *moral*, by which the life is regulated. The *cardinal virtues* of ancient philosophy were:—*wisdom*, *courage*, *temperance*, and *justice* (Plato's *Republic*, bk. iv. p. 428).

As *virtue* implies trial or difficulty, it cannot be predicated of God, who is *holy*.

Kant frequently insists upon this distinction between *virtue* and *holiness*, saying that "the perfect accordance of the will with the moral law is holiness" (Kant's *Theory of Ethics*, Abbott, p. 218).

VOID (The).—*V.* ATOMISM.

VOLITION (*volō*, to will), an exercise of will. Volition "is an act of the mind knowingly exerting that dominion it takes itself to have over any part of the man, by employing it in, or withholding it from, any particular action" (Locke, *Essay*, bk. ii. ch. xxi. sec. 15).—*V.* WILL.

VOLUNTARY.—Applied to actions which are the result of the exercise of the power of rational self-control, *i.e.*, of Volition opposed to *Spontaneous*, *Reflex*, or *Involuntary* action (*q.v.*). Erroneously applied to the movements of animals.—*V.* WILL.

WEBER'S LAW.—*V.* PSYCHO-PHYSICS.

WELL-BEING.—Good as a whole for individual life in the full measure of its duration. This is naturally desired by an intelligent being, and becomes the measure of personal conduct as it determines the experience of others.

While the desire of good is spontaneous, it is not sufficient, but presupposes an intelligent ground of action as a guide for conduct (*cf.* Fowler, *Progressive Morality*, p. 140).

Coleridge (*Aids to Reflection*) says:—"This propensity can never be legitimately made the principle of morality, even because it is no part or appurtenance of the moral will; and

because the proper object of the moral principle is to limit and control this propensity, and to determine in what it may be, and in what it ought to be, gratified; while it is the business of philosophy to instruct the understanding, and the office of religion to convince the whole man, that otherwise than as a regulated, and of course therefore a subordinate, end, this propensity, innate and inalienable though it be, can never be realised or fulfilled."

WHOLE (ὅλος) complete, as in the natural combination of the parts constituting a unity.

"A *whole* is composed of distinct parts. Composition may be *physical*, *metaphysical*, or *logical*; a *physical whole* is made up of distinct parts, and is *natural*, *artificial*, *moral*, or *conventional*; a *metaphysical whole* arises from metaphysical composition, as potency and act, essence and existence; a *logical whole* is composed by genus and differentia, and is called a *higher notion*, which can be resolved into notions under it, as genus into species, species into lower species (Peeman's *Introd. to Phil.*).

WILL.—The power determining personal action, whether purely mental, or both mental and bodily. A voluntary act stands in contrast with the following forms of activity:—a spontaneous act, such as involuntary recollection; a reflex act, as shrinking of a muscle; and mechanical action under the laws of nature. Will is a power of rational self-determination, presupposing knowledge of laws of conduct, and discrimination of means and ends.

Aristotle, in the third book of the *N. Ethics*, treats of the voluntary in action,—“that the principle of which is in the agent himself, when recognising the circumstances in which he acts.” Aristotle “contents himself with the practical assumption of freedom for man” (Grant, *Aristotle's Ethics*, i. 284).

“Every man is conscious of a power to determine, in things which he conceives to depend upon his determination. To this power we give the name of *will*” (Reid, *Active Powers*, essay ii. ch. i.). Edwards says:—“Will is that which chooses anything” (*Freedom of Will*, i. sec. 1).

“*Will* is an ambiguous word, being sometimes put for the

faculty of willing; sometimes for the *act* of that faculty, besides other meanings. But *volition* always signifies the *act of willing*, and nothing else" (*Correspondence of Dr Reid*, p. 79; see Locke's definition of Volition given above).

The leading philosophical problem here concerns the relation of Will to the motive forces of our nature. The Libertarian theory maintains that Will controls motives through guidance of the understanding. The Necessitarian or Determinist theory maintains that volitions are determined by the nature and circumstances of the agent. The upholders of the latter theory commonly represent desire and will as differing only in degree.

(1) **Will and Desire.**—Desire is craving, Will is governing of the dispositions and inclinations, including the desires. On the difference between *desiring* and *willing*, see Locke, *Essay*, bk. ii. ch. xxi. sec. 30; Reid, *Active Powers*, essay ii. ch. ii.; Stewart, *Active and Moral Powers*, app.

For the position of philosophers who have identified desire and volition, see Descartes, *Principles*, pt. i. sec. 32.

Priestley says:—"What is desire besides a wish to obtain some apprehended good? And is not every wish a volition? Every volition is nothing more than a desire, viz., a desire to accomplish some end, which end may be considered as the object of the passion or affection" (*Phil. Necessity*, sec. 4).

James Mill (*Analysis of the Human Mind*) holds that the *will* is nothing but the desire that is most powerful at the time. Brown, also, in his *Essay on Cause and Effect*, sec. 3, says:—"Those brief feelings which the body immediately obeys are commonly called volitions, while the more lasting wishes are simply denominated desires" (cf. Bain, *Emotions and Will*; Green, *Prolegomena to Ethics*, bk. ii. sec. 104).

(2) **Will and Intellect.**—"It was a principle with the Stoics that *will* and desire are one with thought, and may be resolved into it" (Ritter, *Hist. of Anc. Phil.*, Eng. transl., iii. 555). Hence their saying, *Omne actum est in intellectu*.

Intellect directs; will controls. Intellect contemplates the circumstances calling for action, and provides the rule of conduct; will controls the disposition in harmony with the

dictates of intelligence. Conversely, if the dictates of intelligence are consciously disregarded, and inclination is allowed to rule, will power is destroyed.

"Rational beings alone have the faculty of acting according to the conception of laws, that is, according to principles, *i.e.*, have a will" (Kant's *Theory of Ethics*, Abbott, p. 29). "Reason is given as the governor of will, by its sway to constitute it good" (Kant's *Metaph. of Ethics*, Semple, p. 18, 3rd ed.). According to Hegel, the ethical end is *self-realisation*, *i.e.*, the realisation of the true self—not "the mere private self." Bradley states the position thus:—"I am morally realised, not until my personal self has utterly ceased to be my exclusive self, is no more a will which is outside others' wills, but finds in the world of others nothing but self." "Realise yourself as an infinite whole" means "realise yourself as the self-conscious member of an infinite whole, by realising that whole in yourself" (*Ethical Studies*, p. 73). "Hence that all willing is self-realisation is seen not to be in collision with morality" (*ib.*, p. 77; *cf.* Essay ii. *passim*).

On the question, Is the connection between the intellect and the *will* direct or indirect? see Locke, *Essay*, bk. ii. ch. xxi.; Edwards, *Inquiry*, pt. i. sec. 2; Calderwood's *Handbook of Moral Philosophy*, pt. iii. ch. i.—V. SELF-REALISATION.

Will (Freedom of) is power to act in accordance with the guidance of intelligence, after having brought intellect into exercise for discovery of duty. "This is the essential attribute of a *will*, and contained in the very idea, that whatever determines the *will* acquires this power from a previous determination of the *will* itself. The *will* is ultimately self-determined, or it is no longer a *will* under the law of perfect freedom, but a nature under the mechanism of cause and effect" (Coleridge, *Aids to Reflection*). See *Proleg. to Ethics*, bk. ii. ch. ii.; Bradley, *Ethical Studies*, essay i., esp. p. 66; Cyples, *Process of Human Experience*, p. 310.

"Will," says Kant, "is that kind of causality attributed to living agents, in so far as they are possessed of reason, and freedom is such a property of that causality as enables them to originate events independently of foreign determining

causes" (*Metaph. of Ethics*, Semple, 3rd ed., p. 57; Abbott, p. 65).

The will's struggle in ethical life is to free itself from dominion of passion, and to establish its own dominion in the government of conduct. As Kant says:—"Reason is *given* as the governor of the will to constitute it good;" but a true dominion of the Will has to be achieved by development of its power under the guidance of intellect.

WISDOM, practical knowledge aptly applied for guidance of life as whole: prudence in a large sense, that is, uniformly connected with large range of vision.

Plato treats of wisdom as illustrated in the government of the state (*Republic*, bk. iv. p. 428). He says, wisdom is "prudence in counsel:" "a kind of knowledge that makes men deliberate prudently."

Wisdom, says Sir W. Temple, "is that which makes man judge what are the best ends, and what the best means to attain them."

The word corresponding to *wisdom* (*σοφία*) was used among the Greeks to designate philosophy. The *Wisdom* of the Hebrews corresponded to the *Philosophy* of other nations.

Wisdom is restrictive, as well as directive, and the restrictive element enters largely into the illustrations of it. "We cannot say of wisdom, in a disparaging way, it is only an idea. For, for the very reason that it is the idea of the necessary unity of all possible aims, it must be for all practical exertions and endeavours the primitive condition and rule—a rule which, if not constitutive, is at least limitative" (Kant's *Critique of Pure Reason*, Meiklejohn, p. 229).

WIT (*wite*, to know)—(1) originally signified knowledge or wisdom. We still say, *in his wits*, *out of his wits*, or in or out of a sound mind; (2) ready play of intellect in quick recognition of remote resemblances or differences, recognisable among words and things.

Aristotle (*Rhet.*, ii. xii. 16) defines wit as "chastened insolence." And (*Poet.*, v. 2) he says "the ludicrous consists in a thing being out of place, anomalous, ugly, and faulty, though not in such a way as to cause any sense of

apprehension or pain." This definition has been made by Coleridge the text for his dissertations on wit and humour (*Literary Remains*).

Locke says (*Essay*, bk. ii. ch. xi. sec. 2), "*Wit* lies most in the assemblage of ideas, and putting those together with quickness and variety, wherein can be found any resemblance or congruity, thereby to make up pleasant pictures, and agreeable visions in the fancy."

"Referring to Locke's definition," Addison says (*Spectator*), "this is, I think, the best and most philosophical account that I have ever met with of *wit*, which generally, though not always, consists in such a resemblance and congruity of ideas as this author mentions. I shall only add to it, by way of explanation, that every resemblance of ideas is not that which we call *wit*, unless it be such an one that gives delight and surprise to the reader: these two properties seem essential to *wit*, more particularly the last of them."

"It is the design of *wit*," says Campbell (*Phil. of Rhet.*), "to excite in the mind an agreeable surprise, and that arising, not from anything marvellous in the subject, but solely from the imagery she employs, or the strange assemblage of related ideas presented to the mind."

According to Sydney Smith, "the feeling of wit is occasioned by those relations of ideas which excite surprise, and surprise alone."

Taylor, *Synonyms*; Kames, *Criticism*; Shaftesbury, *Essay on the Wit of Freedom and Humour—Characteristics*, vol. i.; *Spectator*, Nos. 58-63; Sydney Smith, *Mor. Phil.*; S. Bailey, *Discourses, Literary and Philosophical*.

WONDER, excitement of mind occasioned by contemplation of an object strange and startling. "In wonder all philosophy began; in wonder it ends: and admiration fills up the interspace. But the first wonder is the offspring of ignorance, the last is the parent of adoration. The first is the birth-throe of our knowledge: the last is its euthanasia and apotheosis" (Coleridge, *Aids to Reflection*).

WORLD.—*V.* COSMOLOGY.

WORTH.—According to Kant, ethical worth is the result

of obedience to the Categorical Imperative. "An action done out of duty has its moral worth, not from any purpose it may subserve, but from the maxim according to which it is determined on; it depends not on the effecting any giving end, but on the principle of volition singly" (Groundwork of *Metaph. of Ethics*, Semple, 3rd ed., p. 11).

"The essence of all moral worth in acting, consists in this, that the moral law be the immediate determinator of the Will" (Semple, 3rd ed., p. 109; Abbott's *Kant's Theory of Ethics*, p. 164).

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SPENCER THOMSON, M.D., EDIN., L.R.C.S.,

REVISED, AND IN PART RE-WRITTEN, BY THE AUTHOR,

AND BY

JOHN CHARLES STEELE, M.D.,

OF GUY'S HOSPITAL.

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